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17 June 1980

East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

No. 2017

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CEMA EFFORTS TO REDUCE TRADE DEFICITS ANALYZED

West Berlin DIW-WOCHENBERICHT in German Vol 47 No 15, 10 Apr 80 pp 165-172

[Article by Jochen Bethkenhagen, German Institute for Economic Research, West Berlin: "Price Increases Favor Efforts of CEMA Countries to Reduce Their Deficits--On the FRG's Trade with the East in 1979." A translation of the Horst Lambrecht article cited in footnote 1 below is published under the heading, "Inner-German Trade Results for 1979 Analyzed," in JPRS 75458, 8 Apr 80, No 1995 of this series, pp 30-40]

> [Text] Last year the CEMA countries made excellent progress in their efforts to reduce their trade deficits with the Federal Republic. The smaller East European countries lowered their deficits by more than DM1 billion; the Soviet Union actually managed a surplus (DM0.8 billion). This improves the economic framework for an upswing in the Federal Republic of Germany's Eastern exports which have stagnated since 1976. However, due to the decline in East European economic growth, major increases such as occurred in the first half of the 1970's are not to be expected in the new five-year plan period beginning in 1981. Currently, though, the interest of both sides in a further development of this exchange of goods is overshadowed by the political discussion of more stringent export restrictions to be imposed on the Soviet Union. It must be assumed that this will affect the Western trade plans of all CEMA countries. At the same time the economic effects of economic sanctions against the USSR tend to be overestimated; the Soviet economy's Western trade links are relatively slight. Due to the export relations between some industries and the USSR, however, greater economic disadvantages for the Federal Republic must be expected.

Strong Price Increases Determine the Rate of Expansion of Trade

In 1979 goods traffic between the Federal Republic of Germany and the European member countries of the Council for Economic Mutual Aid (CEMA)[1]--here also described as Eastern trade--achieved a value of DM31 billion. This represents a 13 percent rise compared to the previous year. For exports as well as imports the share of the European CEMA countries in the foreign trade of the Federal Republic of Germany amounted to about 5 percent. Following the steep rise in CEMA deliveries (+ 27 percent) their importance in the Federal Republic's total imports (they increased by 20 percent) continued to grow. This large rate of expansion of Eastern imports was due almost entirely to price increases. Consequent especially on the hefty rises in in raw material prices the inflation rate[2] for Eastern imports amounted to an average of 23 percent. In other words: The East European countries increased their goods deliveries by only about 3 percent in real terms.

The Federal Republic's 1979 exports to Eastern Europe recorded a less than average rise; in nominal terms they exceeded the previous year's result by only 3 percent (total exports + 10 percent). In real terms, that is after deducting price increases assessed at about 5 percent, these exports in fact declined slightly.

At DM1 billion the export surplus was at its lowest since 1972; considered in relation to exports the surplus (at 6 percent) was also lower than the export surplus of the Federal Republic's total foreign trade (7 percent). That had not happened for many years. The consistent policy of consolidation pursued by the CEMA countries thus resulted in an overall improvement in the economic framework of this trade. Still, the differences between the various countries remained unchanged.

USSR Achieves Delivery Surplus Due to Large Rises in Raw Material Export Prices

The Soviet Union is by far the FRG's most important trade partner among the CEMA countries. Last year 45 percent of the Federal Republic's Eastern trade were carried on with the USSR (1970: 32 percent). At the same time the USSR holds only a 2.3 percent share in the Federal Republic's total foreign trade. It must be noted, though, that this share has doubled since 1970.

In 1979--considered in nominal terms--German-Soviet trade developed well, rising by 20 percent to DM14 billion. The Soviet Union was able greatly to improve its exports earnings (36 percent). For the first time since 1976 it also increased its imports from the Federal Republic, but the 1975 results (DM6.9 billion; 1979 DM6.6 billion) still failed to be achieved. Another first in the latest development of German-Soviet trade was the USSR's balance of trade surplus amounting to just under DM1 billion.

Last year's expansion of this trade, though, resulted entirely from price rises. In real terms the exchange of goods continued to stagnate in both directions. As in 1973 and 1974, when the USSR raised the prices of its exports to the Federal Republic by 20 percent and 60 percent respectively,[3] it profited from the raw material price hike in 1979 also. This time average price increases of 36 percent were recorded for exports; USSR imports, on the other hand, were dearer by only 5 percent.

Once again, therefore, the USSR's export goods structure—based primarily on raw materials--has turned out to be an advantage. The process of concentration was strengthened mainly as a result of price increases and only in part by quantitative considerations. In the period 1972-1979, for example, the USSR increased its oil deliveries (including oil products) from 5.9 million tons to 9.1 million tons; revenues rose very much more, from DM0.4 billion to DM3.7 billion. In 1979 75 percent of Soviet exports to the Federal Republic originated with 4 groups of goods:

	Value in DM	Percentage Share
Oil products	2.7	36
Oil	1.0	14
Natural gas	1.0	14
Primary products (largely enriched uranium)	0.9	12

In the energy sector, though, the USSR has achieved some quite considerable quantitative shares in the Federal Republic's domestic consumption:[4]

	Delivery Volume:	Share of Deliveries:
Enriched uranium	457 tons	55 percent
Natural gas	10 billion cubic meters	16 percent
Oil and oil products	9.1 million tons	6 percent

Including the uranium enriched by way of commission processing, the Soviet Union met some 8 percent of the Federal Republic's 1979 energy consumption. This share is by no means high enough to cause concern; in fact it should be considered against the background of the uncertainties on the world energy markets and as a contribution to the diversification of sources of supply --and consequently to the improvement of the security of supplies.

At the same time the Soviet Union has now achieved substantial shares in imports with regard to some other products (percentage shares of volume):

Palladium	43
Titanium (crude and processed)	21
Cotton (raw)	18
Coniferous lumber (sawn lengthwise)	17
Gold (unprocessed)	13
Asbestos	13
Platinum (unprocessed)	11

These figures demonstrate that the small share in imports held by the USSR (2.5 percent) signifies little with respect to their importance for the Federal Republic's supplies of various raw materials. Due to the strong concentration of Soviet supplies on a few groups of goods considerably greater supply percentages arise for some markets.

The Federal Republic currently holds a 5.6 percent share in the Soviet Union's foreign trade turnover. It is therefore the Soviet Union's most important Western trading partner by far.[5] As, however, the Soviet economy's dependence on foreign trade is relatively small--the Federal Republic's export rate is 4 times greater than that of the USSR--the general economic interrelation of the Soviet economy with the Federal Republic is less intensive than vice versa. This fact is mirrored in the following ratio: In 1979, calculated per capita, the Soviet Union imported goods to the value of DM25 from the Federal Republic; FRG imports from the Soviet Union, on the other hand, had a per capita value of DM125.

The Federal Republic's deliveries consist to about 95 percent of finished goods. Iron goods (such as tinplate) and machines predominate with a share of 33 percent each. Admittedly, last year year witnessed sharply contrasting developments in these two groups of goods. While deliveries of iron goods experienced a strong expansion (+ 25 percent, including in particular a 25 percent gain for tinplate), machine exports declined noticeably (- 16 percent).

As USSR domestic prices are fixed independent of foreign trade prices it is not possible to ascertain the importance of individual goods from the Federal Republic for the Soviet domestic market. Deliveries from the FRG accounted for 7 percent of the Soviet Union's[6] total imports of machines and industrial equipment. The percentage was considerably greater for some items exported by the Federal Republic. Deliveries of rolling mill equipment, rolling mill products and steel pipes, for example, amount to about 33 percent, those of cutting machine tools, mining equipment and machines for the motor vehicle construction industry to about 20 percent of the respective total Soviet imports.[7]

At the same time the example of pipes illustrates the fact that the size of the import share does not by itself allow any conclusions regarding the USSR's dependence on imports. Related to the volume of Soviet production the Federal Republic's deliveries of pipes in the 1970's amounted to only 0.3 percent. The presumably much higher ratio of imports to the production of large-diameter pipes cannot be ascertained.

East European Countries Continue Restraint Regarding Goods Imports

In 1979 the Federal Republic's goods turnover with the five smaller European CEMA countries--here designated CEMA (5)--recorded a volume of DM17 billion. This exceeded the previous year's results by 9 percent. Last year also this exchange of goods was characterized by these countries efforts to reduce their trade deficit with the Federal Republic.

Success was achieved once again because, at 20 percent, their deliveries to the Federal Republic rose considerably faster than their purchases (1.5 percent). The discrepancy between CEMA (5) exports (DM7.5 billion) and their imports (DM9.3 billion), which had amounted to DM5.2 billion in 1974, shrank to DM1.8 billion, the lowest figure since 1972.

However, here also the nominal rates of growth of the streams of goods are at least in part determined by sharp price increases. Compared to the previous year and taking into consideration the country-specific goods structure, the Federal Republic's export prices have risen by 5.5 percent, import prices by as much as 12 percent. It follows that, in real terms, the CEMA (5) countries have actually once more cut back on their goods purchases in the Federal Republic of Germany (- 4 percent). The apparently rather favorable nominal growth in exports (+ 20 percent) is thereby reduced to a real growth rate of 7 percent.

Ever since 1976 imports from the CEMA (5) countries have expanded as fast as the Federal Republic's total imports; in other words these countries share in total imports remains at 2.6 percent. Generally, therefore, these countries have not succeeded in gaining additional market shares in the Federal Republic. Even if we take into account still persisting import restrictions (which affect some 20-30 percent of East European goods),[8] this must be considered to be due to the weakness of these countries foreign trade systems and, not least, the result of a lack of products suitable for export.

The proportional growth of Eastern imports is confronted by stagnating deliveries. Consequently the East European market has steadily lost ground in the German export trade. In 1974 4.2 percent of all exports were sold there; last year the share was only 3 percent. From the aspect of future expansion potentials, though, the continuing adjustment of import and export volumes must be judged a positive factor. Here also the economic conditons for loosening the East European countries restrictive import policies have greatly improved.

Imports by the Federal Republic recorded the greatest rise in regard to oil products; here the value of imports rose by 130 percent compared to 1978. This was due mainly to Romanian deliveries (+ DM375 million). However, clothing, iron goods and chemical primary goods also achieved noticeable rises.

Apparently last year's deliveries from the Federal Republic to the CEMA c countries were used quite particularly to remove supply bottlenecks; foreign trade was used to plug gaps. The Federal Republic achieved high rates of increase in exports of coke (+ 380 percent), grain (+ 78 percent), iron goods (+ 12 percent) and chemical products (+ 10 percent). On the other hand the CEMA countries had no money to spare for any expansion of their imports of investment goods. Machine imports from the Federal Republic, especially, fell victim to import restrictions. The Federal Republic's exports of these items declined by just about DM700 million compared to 1978, with the result that the importance of the East European market for the West German machine construction industry was considerably reduced.[9] The rate of exports fell from 6 percent (1978) to only 4 percent last year.

It must be noted that Federal German imports from Eastern Europe still record a very low proportion of investment goods. Though roughly a third of these imports are now accounted for by finished goods, consumer goods (clothing, leather goods and glassware) still predominate--although quotas persist. Only 8 percent of the East European deliveries involve machines, electrical engineering products and vehicles, whereas the equivalent percentage of Federal German deliveries to the CEMA (5) countries is 36.

Among the smaller CEMA countries Poland is the most important trading partner of the Federal Republic. The economic difficulties that country is currently embroiled in[10] are reflected in its trade with the FRG. Exports to Poland continued to sag--this time by 7 percent (in real terms 13 percent). The value of exports (amounting to DM2.5 billion) was even lower than in 1973. Consequent on these restrictions Poland was able in 1979 further to improve its balance of trade with the Federal Republic. At a deficit of only DM0.3 billion (1974: DM2.2 billion) Poland has approached its goal of an equalized balance of trade. Compared to the development of other CEMA countries the rise in imports from Poland was unsatisfactory; at nominally 6 percent it was well below the average, and in real terms actually declined by 5 percent.

These poor results were due mainly to the drastic decline in vehicle deliveries (- DM120 million) and also to restrictions on food exports (due to a lack of supplies), which account for about one sixth of Polish deliveries. By now copper has become an important import item, representing 10 percent of Polish deliveries; the Polish share in total copper imports by the Federal Republic is also 10 percent.

Outlook: Danger Represented by Increasing Politicization of Eastern Trade

Currently it is almost impossible to forecast the further development of East-West trade and, consequently, the Eastern trade of the Federal Republic of Germany. We cannot exclude the possibility that the political tension between the United States and the Soviet Union may affect German-Soviet trade also. So far the Federal Government's policy has aimed to provide generally favorable conditions for the expansion of this goods traffic. In this connection let us recall, for example, the establishment of mixed economic commissions at government level or the long-range cooperation agreement concluded in May 1978 with the USSR: Both countries obligated themselves "to encourage economic, industrial and technological cooperation between the two countries..on a stable and long-term basis."[11] Trade with the USSR (and the other CEMA countries) was also assigned a political function: The creation of reciprocal dependencies was intended to increase the economic disadvantages of confrontation politics, thus helping to make the latter more unlikely.[12]

We must now ask ourselves whether a change in direction is indicated by the declaration issued at the press conference held jointly by President Carter and Federal Chancellor Schmidt. This included the formula according to which "in shaping economic relations with the Soviet Union care must be taken in order to avoid strengthening Soviet rearmament efforts and the Soviet military potential."[13] The American interpretation of this formula obviously tends to be rather broad, because in future no approval is to be given any individual transactions with the Soviet Union, which involve more than $100 million.[14] It seems doubtful, though, whether such steps are really adequate to achieve the desired aim.

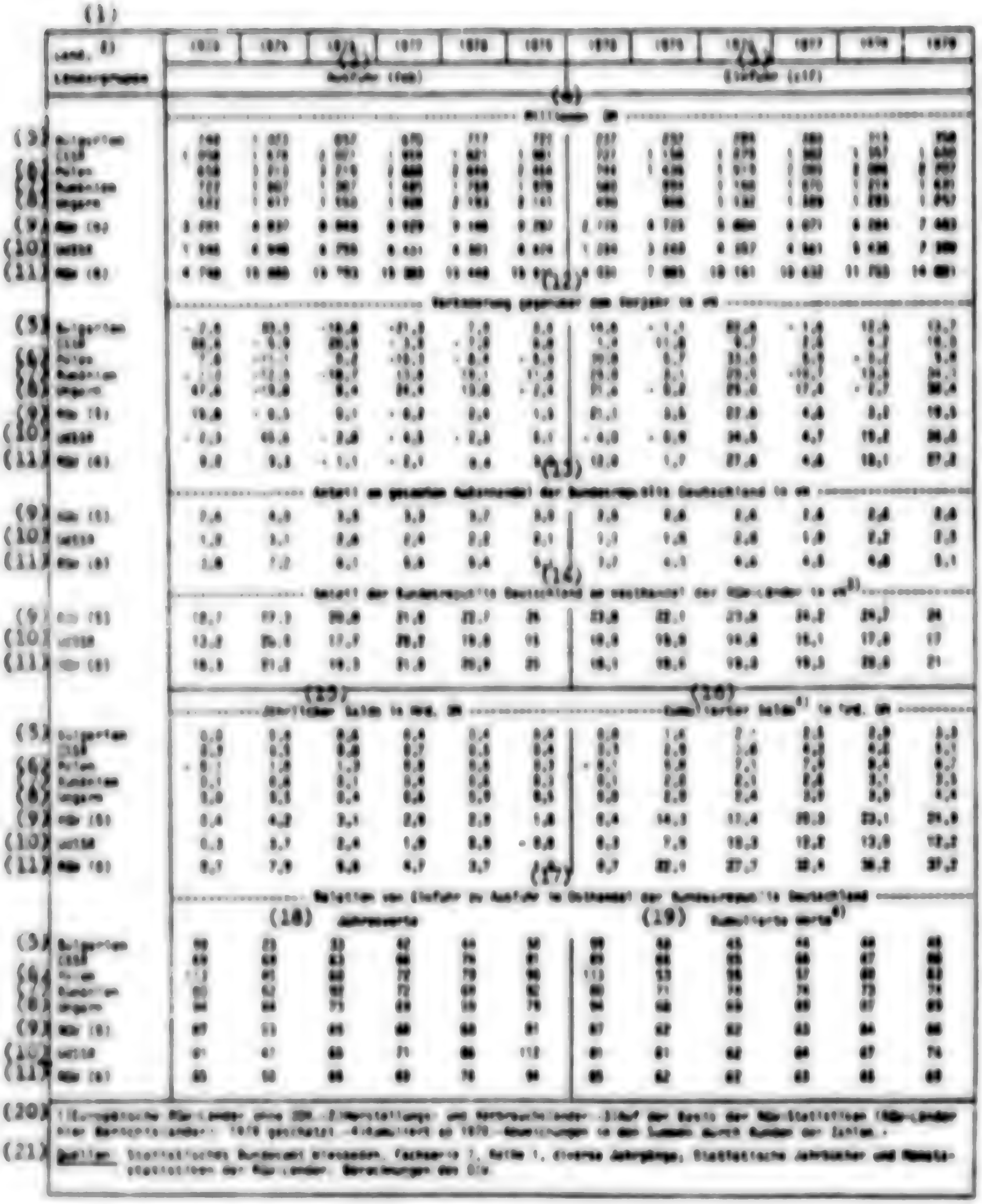
From the aspect of the total economy the linkage between the USSR and the Federal Republic is very slight. Reciprocal imports account for less than 0.5 percent of the respective gross national product or national income. Basically the Soviet Union is one of the few countries capable of self-sufficiency, due to its wealth of raw materials and the sheer dimensions of its domestic market. It is therefore doubtful whether a reduction of exports to the USSR, for example, would have any lasting effects on economic growth there.

For the Federal Republic's economy the loss of exports would certainly not result in any noticeable overall loss of economic growth. The effects on employment of trade with the USSR tend to be overestimated; in the Federal Republic this goods traffic might at best secure about 50,000 jobs.[15] If we include the remaining Eastern trade the effect on employment amounts to about 100,000. The incidence of jobs actually affected by embargo measures would be even smaller because a complete break in trade relations is unlikely. Admittedly, a few industries would be injured by possible trade sanctions against the Soviet Union. The iron and steel industry and machine construction--the first to be affected by export restrictions--would have to expect considerable losses; in 1978 11 percent and 5 percent respectively of their total foreign trade turnover involved the USSR.

However, a total enforcement of goods-specific embargoes seems impossible of achievement--except in the military sector as such. Nobody is able to close off indirect trade routes--by way of the smaller East European countries or the nonaligned nations, for example. Besides, it is quite likely that other suppliers would close the gap. If this is taken into account, we may doubt whether specific embargo measures can be justified from the economic aspect.

In any case the opportunity for another upswing in German-Soviet trade (expected possibly at the beginning of the new five-year plan period) would be lost: Potential export markets would be yielded as well as additional opportunities for securing reasonably cheap and--so far--secure raw material sources; these are consequences which would primarily disadvantage the Federal Republic.

Table 1--Development of the Eastern Trade[1] of the Federal Republic of Germany 1970-1979


(1)
(2)
(3)
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(6)
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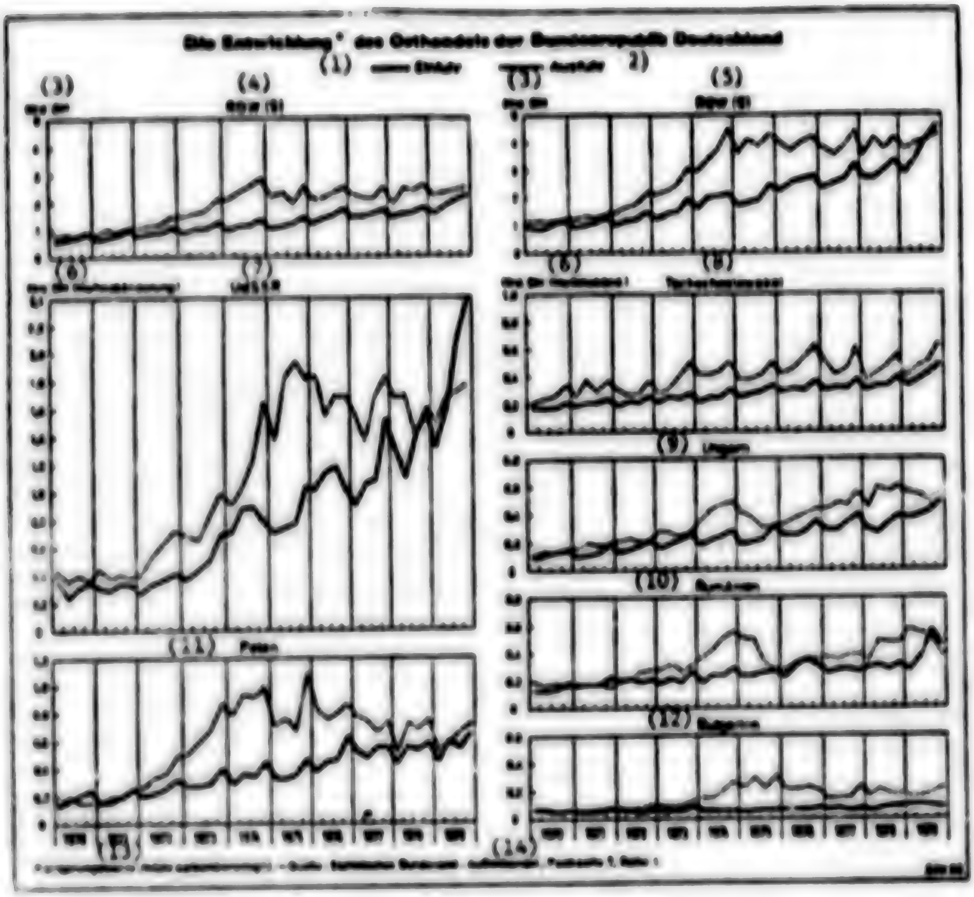
(11)
(12)
(13)
(14)
(15)
(16)
(17)
(18)
(19)
(20)
(21)

[Key on following page]

Key:

1. Country,[2] group of countries
2. Exports (fob)
3. Imports (cif)
4. In million DM
5. Bulgaria
6. Poland
7. Romania
8. Hungary
9. CEMA (5)
10. USSR
11 CEMA (6)
12. Changes compared to the previous year; percentages
13. Percentage share in the total foreign trade of the Federal Republic of Germany
14. Percentage share of the Federal Republic of Germany in the Western trade of the CEMA countries3)
15. Annual result in billion DM
16. Accumulated result4) in billion DM
17. Import:export ratio in the foreign trade of the Federal Republic of Germany
18. Annual values
19. Accumulated values4)
20. Footnotes: 1) European CEMA countries, excluding the GDR.-- 2) Producer and consumer countries.-- 3) On the basis of CEMA statistics (CEMA countries as the reporting countries). 1979 estimated.-- 4) Accumulated since 1970.--Discrepancies in the figures are due to rounding off.
21. Sources: Federal Office for Statistics, Wiesbaden, Technical Series 7, No 1, various years; statistical yearbooks and monthly statistics of the CEMA countries; DIW calculations.

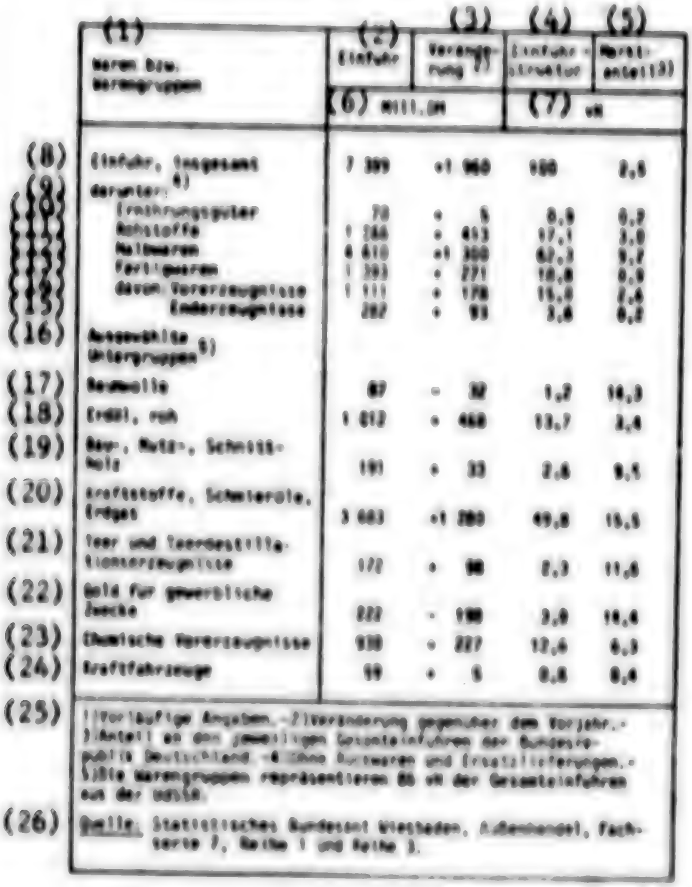
Graph 1--The Development* of the Federal Republic of Germany's Eastern Trade



Key:

1. Imports
2. Exports
3. Billion DM
4. CEMA (5)
5. CEMA (6)
6. Billion DM (change in criterion)
7. USSR
8. Czechoslovakia
9. Hungary
10. Romania
11. Poland
12. Bulgaria
13. Unadjusted values (not seasonally adjusted)
14. Source: Federal Office for Statistics: Foreign Trade, Technical Series 7, No 1.

Table 2--FRG Imports from the USSR by Groups of Goods 1979[1]



	(1) Waren bzw. Warengruppen	(2) Einfuhr	(3) Veränderung 2)	(4) Einfuhrstruktur	(5) Marktanteil 3)
		(6) Mill. DM		(7) vH	
(8)	Einfuhr, insgesamt	7 389	+1 960	100	2,5
(9)	darunter: 4)				
(10)	Ernährungsgüter	70	+ 5	0,9	0,2
(11)	Rohstoffe	1 266	+ 413	17,1	3,0
(12)	Halbwaren	4 610	+1 300	62,3	9,7
(13)	Fertigwaren	1 393	+ 271	18,8	0,9
(14)	davon: Vorerzeugnisse	1 111	+ 178	15,0	2,6
(15)	Enderzeugnisse	282	+ 93	3,8	0,2
(16)	Ausgewählte Untergruppen 5)				
(17)	Baumwolle	87	− 32	1,2	18,3
(18)	Erdöl, roh	1 012	+ 468	13,7	3,4
(19)	Bau-, Nutz-, Schnittholz	191	+ 33	2,6	9,5
(20)	Kraftstoffe, Schmieröle, Erdgas	3 683	+1 280	49,8	15,5
(21)	Teer und Teerdestillationserzeugnisse	172	+ 98	2,3	11,6
(22)	Gold für gewerbliche Zwecke	222	− 198	3,0	10,4
(23)	Chemische Vorerzeugnisse	930	+ 227	12,6	6,3
(24)	Kraftfahrzeuge	59	+ 5	0,8	0,4

(25) 1) Vorläufige Angaben. – 2) Veränderung gegenüber dem Vorjahr. – 3) Anteil an den jeweiligen Gesamteinfuhren der Bundesrepublik Deutschland. – 4) Ohne Rückwaren und Ersatzlieferungen. – 5) Die Warengruppen repräsentieren 85 vH der Gesamteinfuhren aus der UdSSR.

(26) Quelle: Statistisches Bundesamt Wiesbaden, Außenhandel, Fachserie 7, Reihe 1 und Reihe 3.

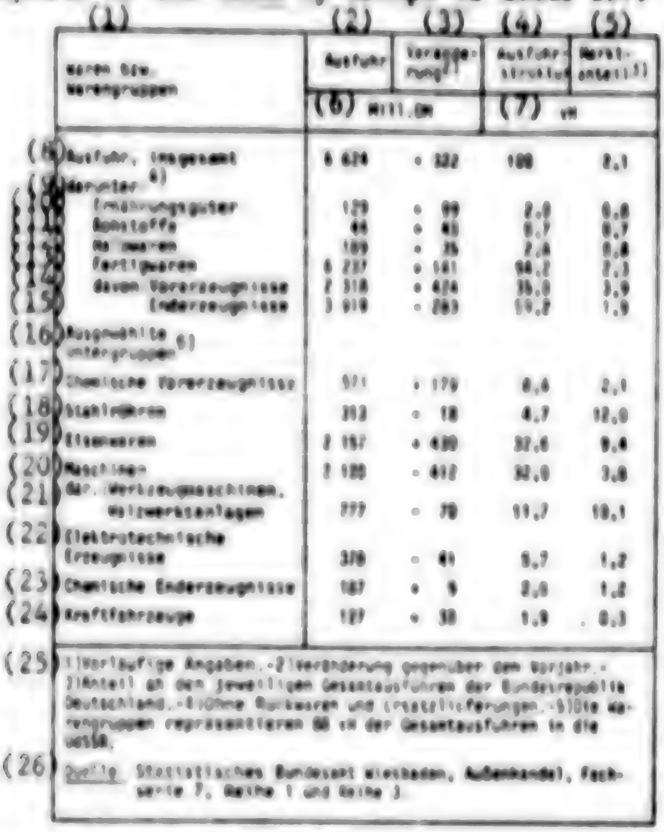
Key:

1. Goods/goods groups
2. Imports
3. Change[2]
4. Import structure
5. Market share
6. Million DM
7. Percentage
8. Total imports
9. Including[4]
10. Foodstuffs
11. Raw materials
12. Semifinished goods
13. Finished goods
14. Including: Primary products
15. Final products
16. Selected subgroups[5]
17. Cotton
18. Crude oil
19. Construction and other lumber
20. Motor fuels, lubricants, natural gas

[Key continued on next page]

21. Tar and products of tar distillation
22. Gold for industrial purposes
23. Chemical primary products
24. Motor vehicles
25. Footnotes: 1) Preliminary data;--2) Change compared to the previous year.-- 3) Share in the respective total imports of the Federal Republic of Germany.-- 4) Excluding reimports and replacement deliveries.-- 5) The groups of goods represent 86 percent of total imports from the USSR.
26. Source: Federal Office for Statistics, Wiesbaden, Foreign Trade, Technical Series 7, Nos 1 and 3.

Table 3--FRG Exports to the USSR by Groups of Goods 1979 1)



(1) Waren bzw. Warengruppen	(2) Ausfuhr	(3) Veränderung 2)	(4) Ausfuhrstruktur	(5) Marktanteil 3)
	(6) Mill. DM		(7) vH	
(8) Ausfuhr, insgesamt	6 624	+ 322	100	2,1
(9) darunter 4)				
(10) Ernährungsgüter	129	+ 99	2,0	0,8
(11) Rohstoffe	44	+ 40	0,7	0,7
(12) Halbwaren	109	+ 35	2,4	0,8
(13) Fertigwaren	6 237	+ 161	94,2	2,3
(14) davon Vorerzeugnisse	2 318	+ 424	35,0	3,9
(15) Enderzeugnisse	3 919	− 263	59,2	1,9
(16) Ausgewählte Untergruppen 5)				
(17) Chemische Vorerzeugnisse	571	+ 179	8,6	2,1
(18) Stahlröhren	313	− 18	4,7	12,0
(19) Eisenwaren	2 157	+ 430	32,6	9,4
(20) Maschinen	2 120	− 412	32,0	3,8
(21) dar. Werkzeugmaschinen, Walzwerksanlagen	777	− 70	11,7	10,1
(22) Elektrotechnische Erzeugnisse	378	− 41	5,7	1,2
(23) Chemische Enderzeugnisse	187	+ 9	2,8	1,2
(24) Kraftfahrzeuge	127	+ 38	1,9	0,3

(25) 1) Vorläufige Angaben.-2) Veränderung gegenüber dem Vorjahr.-3) Anteil an den jeweiligen Gesamtausfuhren der Bundesrepublik Deutschland.-4) Ohne Rückwaren und Ersatzlieferungen.-5) Die Warengruppen repräsentieren 88 vH der Gesamtausfuhren in die UdSSR.

(26) Quelle: Statistisches Bundesamt Wiesbaden, Außenhandel, Fachserie 7, Reihe 1 und Reihe 3.

Key:

1. Goods/groups of goods
2. Exports
3. Changes[2]
4. Export structure
5. Market share[3]
6. Million DM
7. Percentage
8. Total exports
9. Including
10. Foodstuffs
11. Raw materials

[Key continued on following page]

12. Semifinished goods
13. Finished goods
14. Including: Primary products
15. Final products
16. Selected subgroups5)
17. Chemical primary products
18. Steel pipes
19. Iron goods
20. Machines
21. Including machine tools, rolling mill plant
22. Electrical engineering products
23. Chemical final products
24. Motor vehicles
25. Footnotes: 1) Preliminary data.-- 2) Changes compared to the previous year.-- 3) Share in the respectivel total exports of the Federal Republic of Germany.-- 4) Excluding reimports and replacement deliveries.-- 5) The groups of goods represent 88 percent of total exports to the USSR.
26. Source: Federal Office for Statistics, Wiesbaden, Foreign Trade, Technical Series 7, Nos 1 and 3.

Table 4--FRG Imports from CEMA (5) 1) by Groups of Goods 1979 2)

	(1) Waren bzw. Warengruppen	(2) Einfuhr	(3) Veränderung 3)	(4) Einfuhrstruktur	(5) Marktanteil 4)
		(6) Mill. DM		(7) vH	
(8)	Einfuhr, insgesamt	7 483	+ 1 218	100	2,6
(9)	darunter 5)				
(10)	Ernährungsgüter	1 076	+ 38	14,4	2,7
(11)	Rohstoffe	618	+ 93	8,3	1,6
(12)	Halbwaren	1 995	+ 704	26,7	4,8
(13)	Fertigwaren	3 642	+ 391	48,7	2,3
(14)	davon: Vorerzeugnisse	1 102	+ 170	14,7	2,6
(15)	Enderzeugnisse	2 540	+ 221	33,9	2,2
(16)	Ausgewählte Untergruppen 6)				
(17)	Fleisch und Fleischwaren	412	+ 27	5,5	9,2
(18)	Obst und Gemüse	214	- 12	2,9	6,7
(19)	Öle und Ölfrüchte	54	- 7	0,7	1,6
(20)	Kohle	275	+ 46	3,7	35,0
(21)	Holz und Holzwaren	478	+ 25	6,4	6,7
(22)	Eisenhalbzeug	128	+ 2	1,7	8,2
(23)	Kupfer, roh	312	- 65	4,2	12,9
(24)	Kraftstoffe, Schmieröle, Erdgas	1 032	+ 581	13,8	4,3
(25)	Teer- und Teerdestillationserzeugnisse	57	+ 22	0,8	3,9
(26)	Chemische Halbwaren	99	+ 12	1,3	3,2
(27)	Gewebe	152	- 1	2,0	2,0
(28)	Papier und Pappe	70	+ 7	0,9	1,7
(29)	Chemische Vorerzeugnisse	250	+ 52	3,3	1,7
(30)	Eisenwaren	695	+ 142	9,3	5,6
(31)	Bekleidung	996	+ 154	13,3	8,3
(32)	Lederwaren einschl. Schuhe	177	+ 27	2,4	3,2
(33)	Glaswaren	71	+ 3	0,9	7,4
(34)	Maschinen	285	+ 58	3,8	1,5
(35)	Elektrotechn. Erzeugnisse	211	+ 21	2,8	1,2
(36)	Fahrzeuge	81	- 118	1,1	0,6

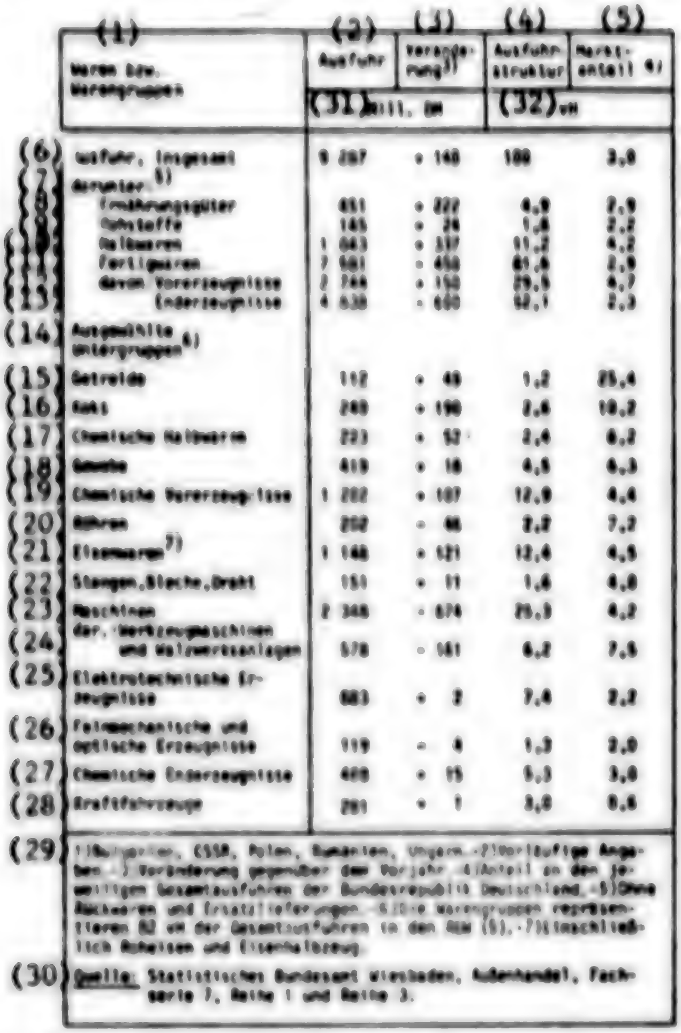
(37) 1)Bulgarien, CSSR, Polen, Rumänien, Ungarn.-2)Vorläufige Angaben.-3)Veränderung gegenüber dem Vorjahr.-4)Anteil an den jeweiligen Gesamteinfuhren der Bundesrepublik Deutschland.-5)Ohne Rückwaren und Ersatzlieferungen.-6)Die Warengruppen repräsentieren 81 vH der Gesamteinfuhren aus dem RGW (5).

(38) Quelle: Statistisches Bundesamt Wiesbaden, Außenhandel, Fachserie 7, Reihe 1 und Reihe 3.

Key:

1. Goods/groups of goods
2. Imports[3]
3. Changes
4. Import structure
5. Market share[4]
6. Million DM
7. Percentage
8. Total imports
9. Including[5]
10. Foodstuffs
11. Raw materials
12. Semifinished goods
13. Finished goods
14. Including: Primary products
15. Final products
16. Selected subgroups[6]
17. Meat and meat products
18. Fruit and vegetables
19. Oils and oilseed
20. Coal
21. Lumber and woodware
22. Semifinished iron goods
23. Crude copper
24. Motor fuels, lubricants, natural gas
25. Tar and tar distillation products
26. Chemical semifinished goods
27. Fabrics
28. Paper and cardboard
29. Chemical primary products
30. Iron goods
31. Clothing
32. Leather goods including footwear
33. Glassware
34. Machines
35. Electrical engineering products
36. Vehicles
37. Footnotes: 1) Bulgaria, CSSR, Poland, Romania, Hungary.--Preliminary data.-- 3) Changes compared to the previous year.-- 4) Share in the respective total imports of the Federal Republic of Germany.-- 5) Excluding reimports and replacement deliveries.-- 6) The groups of goods represent 81 percent of total imports from CEMA (5).
38. Source: Federal Office for Statistics, Wiesbaden, Foreign Trade, Technical Series 7, Nos 1 and 3.

Table 5--FRG Exports to CEMA (5)[1] by Groups of Goods 1979[2]



(1) Waren bzw. Warengruppen	(2) Ausfuhr	(3) Veränderung[3]	(4) Ausfuhrstruktur	(5) Marktanteil[4]
	(31) Mill. DM		(32) vH	
(6) Ausfuhr, insgesamt	9 287	+ 140	100	3,0
(7) darunter:[5]				
(8) Ernährungsgüter	851	+ 222	9,2	2,9
(9) Rohstoffe	165	+ 26	1,8	2,2
(10) Halbwaren	1 043	+ 337	11,2	4,2
(11) Fertigwaren	7 581	- 450	81,6	2,9
(12) davon Vorerzeugnisse	2 744	+ 150	29,5	4,7
(13) Enderzeugnisse	4 838	- 600	52,1	2,3
(14) Ausgewählte Untergruppen[6]				
(15) Getreide	112	+ 48	1,2	25,4
(16) Koks	240	+ 190	2,6	10,2
(17) Chemische Halbwaren	223	+ 52	2,4	8,2
(18) Gewebe	419	+ 18	4,5	6,3
(19) Chemische Vorerzeugnisse	1 202	+ 107	12,9	4,4
(20) Röhren	202	- 68	2,2	7,2
(21) Eisenwaren[7]	1 148	+ 121	12,4	4,5
(22) Stangen, Bleche, Draht	151	+ 11	1,6	4,0
(23) Maschinen	2 348	- 674	25,3	4,2
(24) dar. Werkzeugmaschinen und Walzwerksanlagen	578	- 161	6,2	7,5
(25) Elektrotechnische Erzeugnisse	683	+ 2	7,4	2,2
(26) Feinmechanische und optische Erzeugnisse	119	- 4	1,3	2,0
(27) Chemische Enderzeugnisse	490	+ 15	5,3	3,0
(28) Kraftfahrzeuge	281	+ 1	3,0	0,6

(29) 1) Bulgarien, CSSR, Polen, Rumänien, Ungarn.- 2) Vorläufige Angaben.- 3) Veränderung gegenüber dem Vorjahr.- 4) Anteil an den jeweiligen Gesamtausfuhren der Bundesrepublik Deutschland.- 5) Ohne Rückwaren und Ersatzlieferungen.- 6) Die Warengruppen repräsentieren 82 vH der Gesamtausfuhren in den RGW (5).- 7) Einschließlich Roheisen und Eisenhalbzeug.

(30) Quelle: Statistisches Bundesamt Wiesbaden, Außenhandel, Fachserie 7, Reihe 1 und Reihe 3.

Key:

1. Goods/groups of goods
2. Exports
3. Changes[3]
4. Export structure
5. Market share[4]
6. Total exports
7. Including[5]
8. Foodstuffs
9. Raw materials
10. Semifinished goods
11. Finished goods
12. Including: Primary products
13. Final products
14. Selected subgroups[6]
15. Grains
16. Coke
17. Chemical semifinished goods

[Key continued on following page]

18. Fabrics
19. Chemical primary products
20. Pipes
21. Iron goods 7)
22. Rods, plate, wire
23. Machines
24. Including machine tools and rolling mill plant
25. Electrical engineering products
26. Precision engineering and optical products
27. Chemical final products
28. Motor vehicles
29. Footnotes: 1) Bulgaria, CSSR, Poland, Romania, Hungary.-- 2) Preliminary data.-- 3) Change compared to the previous year.-- 4) Share in the respective total exports of the Federal Republic of Germany.-- 5) Excluding reimports and replacement deliveries.-- 6) The groups of goods represent 82 percent of total exports to CEMA (5).-- 7) Including crude iron and iron semifinished products.
30. Source: Federal Office of Statistics, Wiesbaden, Foreign Trade, Technical Series 7, Nos 1 and 3.
31. Million DM
32. Percentage

FOOTNOTES

1. Excluding the GDR. On the development of inner-German trade see "Inner-German Trade 1979: Price Increases Disguise Decline in Trade Volume, by Horst Lambrecht; DIW-WOCHENBERICHT No 9/10, 1980.

2. Calculation of the price index: the goods specific price indices for the total trade of the Federal Republic (see Federal Office for Statistics, Technical Sereis 17, No 8) were weighted with the goods structure (35 items) of the trade with the respective East European countries in the base year (see Federal Office for Statistics, Wiesbaden, Technical Series 7, No 7) (price index according to Laspeyres). It is assumed here that price changes in Eastern trade follow those occurring in trade generally.

3. See "The Federal Republic of Germany's Eastern Trade in a Stage of Consolidation," by Jochen Bethkenhagen. DIW-WOCHENBERICHT No 14/1976, p 134.

4. Domestic production plus imports minus exports. Enriched uranium: Share of imports corresponding as to dimension to the share in domestic consumption.

5. Followed by: United States (3.5 percent), France (3.3 percent), Finland and Japan (3.2 percent each) and Italy (2.7 percent). See AUSSENHANDEL (USSR) No 3/1980, supplement.

6. 1978 data. Source: "USSR Foreign Trade Yearbook 1978" (in Russian).

7. These three items account for 50 percent of German exports to the USSR.

8. See Wolfgang von Lingelsheim-Selbicke: "Handbuch fuer den Osthandel" [Eastern Trade Manual], Cologne 1977, p X/3.

9. Within the classification of foreign trade statistics, broken down by groups of goods and subgroups of the food industry and trade.

10. Last year Poland recorded the first postwar decline in its gross national product. Its debts with the West are estimated at $19 billion; they are financed in part by short-term loans.

11. See article 1 of the "Agreement on the Development and Deepening of Long-Range Cooperation Between the Federal Republic of Germany and the Union of Soviet Socialist Republics in the Field of Trade and Industry," BUNDESGESETZBLATT 1979, II, No 3, 23 January 1979.

12. The preamble of the 1978 long-range cooperation agreement states, for example: "Appreciating that the deepening of economic, industrial and technological cooperation in accordance with the final act of the Conference on Security and Cooperation in Europe...serves international detente and peace in Europe and the world..."

13. See SUEDDEUTSCHE ZEITUNG, 7 March 1980.

14. See DIE WELT, 25 March 1980.

15. Calculated as direct and indirect effects on employment, taking imports into account.

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CEMA ENERGY PROGRAM DESCRIBED

Budapest FIGYELO in Hungarian No 18, 30 Apr 80 p 4

[Article: "CEMA's Energy Program"]

[Text] The situation in fuels and energy management significantly determines the pace of the further development of the world economy and the economic growth of the individual countries. Since the turn of the century, the world's energy consumption has increased 10-fold and today reaches almost 8 billion conventional tons of fuels (one rounded conventional ton equals 1.5 tons of coal or 0.7 ton of crude oil or 844 cubic meters of natural gas).

The CEMA pays special attention to the problems of the energy industry. The long-range cooperational target program--the joint document which is supposed to guarantee meeting the economically justified needs of the member states for basic sources of energy, fuels and raw materials for the period ending in 1990--reflects the strategy that was worked out jointly.

The combined energy system is the aggregate of the state energy systems of Bulgaria, Czechoslovakia, Poland, Hungary, East Germany, Romania and the Soviet Union. At present the combined energy system has transmission lines connecting 34 countries, 9 of them having a voltage of 400 kilovolts, 18 of 220 kilovolts and 1 of 750 kilovolts (from the Soviet Union's Vinnitsa to Hungary's Albertirsa). The total output of the power plants connected to them was 80 million kilowatts, and their power supply was 407 billion kilowatt-hours in 1977. The power exchange between the CEMA-countries reached 20 billion kilowatt-hours.

Within the combined energy system, Soviet power exports are continually growing. Poland, Hungary and East Germany get their power from the energy system at Lvov, and Bulgaria gets it from that in Moldavia. The Soviet Union exported more than 11 billion kilowatt-hours in 1978.

Nuclear Power Plants, Transmission Lines

In order to expand inter-system relations and to increase transmitting capacity, two new 750-kilovolt transmission lines are planned. In order to strengthen the combined energy system and to better meet the apparent needs of the CEMA-countries, two large nuclear plants are being built in the Soviet Union, one at Khmelnitsk and one at Konstantinovo, each with a capacity of 4 million kilowatts. Fifty percent of the power generated at these two power plants will be exported to the European CEMA-countries.

The increasing need of the CEMA countries for power is met by an accelerated development of the nuclear power industry. At present, the built-in capacity of nuclear plants in the CEMA-countries is 10,870 megawatts and, within that, about 8,000 megawatts in the Soviet Union, 880 in Bulgaria, 1,400 in East Germany, and 590 in Czechoslovakia. New nuclear plants are being built in Bulgaria, Czechoslovakia, Hungary, East Germany and the Soviet Union. In Cuba, Poland and Romania preparations are being made for building nuclear plants. The built-in capacity of nuclear plants to be built in the CEMA-countries must be about 37 billion kilowatts in 1990 (without the Soviet Union) and, within that, 4.76 million in Bulgaria, 8.52 in Czechoslovakia, 4.88 million in Poland, 4.76 million in Hungary, 9.59 million in East Germany, and 3.44 million in Romania. This will be achieved by extensive specialization and cooperation in the production of nuclear plant equipment.

The price increases for conventional fuels and sources of energy materials and the difficulties in long-range transport create the conditions for the increased economic efficiency of nuclear plants even if their construction requires significant investments. The difference in 1967 between the construction costs of a nuclear plant and those of a thermal plant reached 40 percent. In 1972 it decreased to only 27 percent and in 1974, to 11 percent. This guarantees that, within the electrical power industry, the nuclear power industry will develop more rapidly than the other branches.

The program also has allocations for the construction of further thermal plants operating with solid fuels and using turbine units with a capacity of 200-800 megawatts. The construction of several power plants with reservoirs are being planned--with a joint effort of several countries--in Bulgaria, Poland, Hungary and Yugoslavia. This type of power plant makes the economical utilization of water energy possible.

The Development of the Fuel Industry

Within the CEMA, the Soviet Union produces about 97 percent of the crude oil and almost 85 percent of the natural gas. The CEMA-countries, with the exception of Romania, meet their demand for oil and gas [with imports] from the Soviet Union.

It was planned for the 1980's that the individual countries increase their own production of oil and gas to some degree, through deep drillings and drillings on the continental shelf, among other things. In addition, it is also planned to limit the use of oil and gas as fuels.

The increase of the "depth" of crude oil refining makes the improvement of the CEMA-countries' supply of "white" products [fehe'r terme'keh], including motorfuels, and the efficiency of use possible. In the interest of this, the introduction of more up-to-date technology and a wider use of the secondary processes (catalytic cracking, hydrocracking, etc.) are planned.

The joint geological coal supply of the CEMA-countries (without the Soviet Union) was estimated on 1 January 1975 at 230-270 billion tons. In the Soviet Union the coal supply, already included in the balance, was about 420 billion tons. These supplies can satisfy the increasing demands of countries belonging to the socialist community, even in the distant future.

At present, about 30 percent of the world's coal production comes from the CEMA countries. Production is continually increasing. In 1960, 496 million tons of coal and 469 million tons of brown-coal and lignite were mined, while in 1978, the figure reached 735 million and 626 million tons, respectively. (World production in 1977 reached 2,430 million tons of coal and 910 million tons of brown-coal and lignite.)

The prognoses made for the development of the CEMA countries' national economies up to 1990 and 2000 predict a more intensive use of coal as a fuel or source of energy, as a raw material for producing liquid fuels, liquid gas and chemical materials, and as a source of rare substances.

The implementation of the energy program is also helped by broad technical and scientific measures. These are intended to encourage partly the more economical use of nuclear energy, the use of new energy sources (sun, wind, and geothermal) and the increase of efficiency of geological research and, partly, the production of synthetic fuels.

The long-range cooperational program of the energy and fuel industries reflects the combined strategy of the socialist community up to 1990 for developing a fuel and energy industrial complex.

Specific plans were worked out for each project of the program which will be realized on the basis of multilateral and bilateral agreements. The joint implementation of the program unites the CEMA-countries' economic, scientific and technological resources to solve fundamental national economic problems.

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CURRENCY RATES IN CEMA, TOURISM EFFECTIVENESS DISCUSSED

Warsaw BANK I KREDYT in Polish No 1, Jan 80 pp 12-16

[Article by Jerzy Wesolowski and Pawel Wyczanski]

[Text] In recent years, a tremendous development of the tourist movement has been in evidence all over the world. This phenomenon has not bypassed socialist countries, Poland included. In 1970, 1.6 million visitors from socialist countries visited Poland, and in 1978, 9.7 million. The movement of Poles visiting other countries grew even more rapidly, from 760,000 in 1970 to 9,389,000 in 1978. Some of the factors which caused this phenomenon were: the gradual lifting of restrictions for private citizens and the growth of affluence of inhabitants of socialist countries.

In conjunction with this, the role of payments relative to the tourist movement within the whole makeup of payments turnovers among CEMA countries grew very significantly, and the mutual equivalency of accounting on this score took on prime significance. From this also derives the necessity for constantly improving the methods of establishing currency rates among socialist countries, taking into consideration that area of tourist problems which arises from the share of these turnovers within the whole of noncommericial payments.

Within the currency system of socialist countries, the distinct separation of the following has clearly taken place:

--trade turnovers, or the exchange of goods and services which may be executed according to foreign prices expressed in agreed-upon currency units, in isolation from the existing domestic price structure and national currency rate;

--noncommercial turnovers, or the mutual rendering of broadly understood services according to domestic prices in national currency, which may be calculated exclusively on the basis of compulsory national currency rates.

The elimination of direct links between foreign prices expressed in foreign currencies and domestic prices expressed in national currencies in calculations of trade exchange, which may have an effect on the directions of domestic production and consumption, on the one hand, and may influence the volume and material structure of foreign exchange, on the other, is recognized as indispensable and within the realm of possibility.

As regards noncommercial exchange, it has not been given greater significance because of its slight turnovers. This has enabled the establishment of gold standards of national currencies on a high level which does not correspond to the level of domestic prices. This, in turn, has led to the disparate overvaluation of the currency rate, influencing the equivalency of mutual calculations on the score of services rendered according to domestic prices, to a certain degree. The constant growth of domestic prices in various countries, although it has occurred in different intensities, has increased this overvaluation.

The growing nonequivalency of exchange in the area of services rendered according to domestic prices meant that socialist countries have begun to seek solutions enabling them to avoid the consequences of the divergence between the standard rate and the real buying power of currencies. It is for this reason as well that the Soviet Union, in the middle of 1956, came forth with an initiative for reducing the value of services rendered according to domestic prices and converted in accordance with national currency rates to the level of compulsory prices in foreign trade, with the calucation of equivalence in ruble clearing only following upon this. This was to be achieved through the derivation of a ratio through the comparision of the total of domestic prices to the total of prices of foreign trade, for a specific array of items representative of the consumption of the four-person worker's family of foreign representatives.

On the basis of the calculations which were carried out in the second half of 1956, countries contracted bilateral agreements, first with the Soviet Union, and then with each other, according to which payments executed during that year from specific titles were excluded from clearing calculations. Then their new equivalence in ruble clearing was established through the application of the calculated ratios, and this equivalence was introduced into clearing accounts, which considerably reduced turnovers from these titles.

Continued negotiations modified the method of conversion to a great degree, transferring the financial consequences resulting from the conversion directly to the items of exchange, to a certain degree. Thus, it is as if a two-step method for calcuations from specific titles had been established. First, the so-called national currency rates were derived, with a surcharge or reduction to the basic (standard) rate as a result of a comparison of their purchasing power based on the total of prices for goods included in a basket in particular currencies. Then the conversion to ruble clearing was established by means of a comparison--as in 1956--to the total of the basket in foreign-trade prices. In this way far-reaching changes in the mutual relations of national currencies were achieved, considerably reducing the cost to foreigners of utilizing services rendered according to retail domestic prices in national currencies. At the same time, through the change of the relationship of these currencies to ruble clearing, there occurred a change in the equivalence of mutual calculations from the viewpoint of the national economy as a whole.

As a result of continued efforts and direct negotiations, an agreement was signed in Prague on 8 February 1963 concerning noncommercial payments. This agreement determined, among other things, the titles of turnovers included in these calculations and the protocol for an agreement establishing the rate of the ruble with regard to particular currencies. On the basis of these proposals, the mutual rates of remaining currencies was to be derived. In the course of noncommercial payments the following were to be calculated above all: the costs for upkeep of representatives and visitors, the costs of international transport of rail passengers, as well as passengers traveling by air and other means in communication among interested countries, the cost of education and medical care, of contributions to international organizations, of the granting of honorariums, prizes, pensions, alimony, assistance, inheritances, remuneration for work, the cost of travel for citizens for private purposes, the costs of exchanges of radio and television programs, and the like.

Accepting the fact that just as domestic prices in particular countries may undergo definite changes over the course of years, so may the prices of foreign trade undergo changes, the countries concluding the Prague agreement established that in the event that the total of prices of the articles included in the agreed-upon basket were to undergo a change of ±5 percent, a revision of the national currency rates according to the conversion into ruble clearing would occur. Although this proposal was not applied in practice, CEMA countries, under the influence of growing price changes and the consequent nonequivalance of mutual calculations, in the second half of 1969 undertook efforts toward the further improvement of the system of noncommercial payments. One stage of these efforts was concluded with the signing of an understanding on 17 July 1971 in Bucharest which concerned the introduction of a schedule of noncommercial payments and of a ratio for converting the total of noncommercial payments into transferable rubles, changing the ratio from 3:4 to 2:3.[1]

Directly upon the signing of this understanding there began, as it were, the second round of negotiations concerned with further specifications of the structure of the basket. As a result of frequent meetings of experts, at a meeting of the CEMA Currency-Financial Commission in Szekesfehervar in 1974, a new basket of goods and services was accepted, although it was not totally agreed upon.[2] Changes evidenced in the value of several national currencies of CEMA countries occasioned new multilateral talks, which took into consideration a comparison of values of the baskets only to a certain degree. When the problems of mutual national currency rates were regulated in a certain sense in the years 1975-1976, on 1 January 1978 the further reduction of the conversion sum of Soviet rubles into transferable rubles occurred. This signified a sort of recognition of the change in the value of the transferable ruble with reference to the negotiable Soviet ruble.

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1. J. Ptaszek, "Cooperation with the Framework of the International Currency-Financial System of CEMA Countries," HANDEL ZAGRANIZCNY, No 9, 1978

2. It is composed of 41 consumer articles, 26 industrial items and 21 service items (for a total of 88 items)

On the basis of this discussion we may make the statement that, although the assumption of the mechanism of operation of the system of noncommercial payments itself has not undergone essential modifications over the year, the principles of operation of this mechanism and the ways of executing changes in currency rates and the conversion have yielded to substantial change. The assumption to set up mutually agreeable national currency rates and the conversion into transferable rubles based on the standard of the purchasing power of these currencies in relationship to the standard of the purchasing power of transferable rubles was maintained. However, whereas the index of this power in the first period was the basket of goods and services, agreed upon in terms of structure, amount and domestic prices, as well as in terms of foreign trade, complete accord concerning the amount and prices of the basket in setting up national currency rates has recently not been achieved as a rule, and the amount of rates is regotiated.

At the same time, the departure from multilateral accords of the amounts of mutual national currency rates took place in practice. Consequently, to the extent that formerly national currency rates intersected (i.e., if one knew the currency rate of country A in the currency of country B and the currency of country C in the currency of country B, it was possible to determine the currency rate of country A in the currency of country C), at present, as a consequence of the allowing for the possibility of bilateral fixing of national currency rates, this intersecting no longer occurs.

At the same time, this signifies a departure from a uniform relationship of national currencies to transferable rubles. When national currency rates were linked with each other, there existed one rate for every currency in relation to the Soviet ruble, and consequently, by means of conversion, to the transferable ruble. The shift into rates which are not linked with one another means that in noncommercial exchange, a differentiated relationship of the national currency to the transferable ruble appears, dependent upon the accepted rate of other currencies in this currency.

Accepting the comparison of the purchasing power of these currencies, measured in terms of the value of the specific basket of goods and services, as the point of departure for setting up mutual currency rates means nothing more than basing the index on some sort of average amount, issuing from the division of one total of a basket by another total. Consequently, the currency rate has the quality of an average rate, dividing the whole of goods and services accessible in a given market in retail prices into those which, for a foreigner, will be the cheaper, and those which will be more expensive in this currency by comparison to the prices of these goods and services in the currency of the foreigner's country. The divergences in this area will be the more significant, the greater the differences in the price structure between these countries.

It is understood that foreign tourists will buy chiefly those goods and services which they find relatively cheap, limiting their expenditures for relatively more expensive goods and services; this cannot be helped.

However, they will be forced in a certain area to incure expenditures for goods and services enabling their stay in a given country (e.g., lodging, indispensable food), the prices of which at a given rate are set up to their disadvantage by comparison to prices in their native country. Only when the general balance of expenditures permits them to value the purchasing power of their own currency on a given market does the stay in this country become attractive.

This sort of pressure to incur expenditures in noncommercial turnovers is the principal difference as regards trade exchange, in which the currency rate should signify the absolute boundary of the profitability of this exchange.

Thus, on one hand, it is inevitable that the foreign tourist (and not only the tourist) will incur profitable and unprofitable expenditures, and on the other, the accepting country places at his disposal all sorts of goods on the market, without regard for their origin as imported goods from socialist or capitalist countries, or whether they are subsidized by the budget (making their retail prices lower than their production costs). In this case as well, the general balance of purchases determines its own sort of the profitability or unprofitability of accepting foreigners into the country.

It is possible to fix separate prices for nationals and foreigners (higher for foreigners) only in the case of certain services, as, e.g., hotel services. In this case, this price, as it enters the basket, affects purchasing power correspondingly. If it is relatively higher than beyond the country's borders, raising the total of the basket, it must produce the effect of lowering the purchasing power of the currency, and consequently its rate in foreign currencies as well. This causes the shifting of the boundary of the distribution of goods and services which are profitable in the direction of the increase of purchases of profitable goods by foreigners at the given rate. At the same time, it causes a reduction in the costs of upkeep for foreigners in the given country by keeping their expenditures at the same level--thus the necessity for rendering a greater number of goods and services. At the same time it is understandable that, despite the shift of the above-mentioned boundary, the increased purchasing power of foreigners remains directed toward the relatively cheapest items.

In this situation, foreigners will limit their expenditures for hotels maximally, since they are, relatively speaking, the most expensive ones, increasing their purchase of the cheapest goods. As a result, setting high prices for hotels may not bring about the expected results, but on the contrary, it may bring about the decreased profitability of noncommercial exchange for the given country.

The awareness that the rate of purchasing power is an average rate is of fundamental significance inasmuch as cancels out the tendency to set up a rate which would guarantee the profitablity of the rendering of all goods and services for the country taking in foreigners, and at the same time it does not permit the application of separate prices for foreigners due to their negative effect on the general profitability of exchange.

It should be emphasized very strongly that in the first period there was excessive faith in the possibility of a strict mathematical accounting of economially justified national currency rates and of the conversion into transferable rubles. In the nature of things, however, the method which was accepted for establishing the purchasing powers of national currencies and of the transferable ruble contains the possibility of the occurrence of a number of inaccuracies as well as the possibility of adopting arbitrary enough solutions as a result of compromises, and not objective events.

As far as studying the mutual purchasing powers of national currencies is concerned, it should be pointed out that the basket of goods and services accepted by CEMA countries cannot take into consideration the consumption habits of particular countries as much as it should, since it is of a universal character and obliges all the socialist countries.

Of no less significance is the fact that the structure of the basket does not correspond in substance to the structure of turnovers in noncommercial payments and calculations according to noncommercial rates. In noncommercial payments, besides turnovers due to travel--both tourist and work-related travel--composing the largest share, there are also payments involving transport and communications, various services , construction costs, the upkeep of representatives and monetary transfers. At the same time, significant amounts are calculated according to noncommercial rates (although they do not enter into noncommercial payments) within the framework of the costs of upkeep incurred in the national currencies of various international institutions and organizations, as well as joint investment and production undertakings of CEMA countries.

It must also be pointed out that the acceptance of the basket as the basis for comparison eliminates the possibility of manifesting the differences in the level of market supply through the rate, and the differences in this regard may be substantial. In one country there may be a wide variety of models, styles and brands of a particular product; another may have only one kind of item, eliminating the possibility of a choice. There may also be differences in the supply volume. In one country it is possible to make purchases without difficulty; in another the supply is limited and people wait in lines in stores.

Another factor which may be of basic significance is the occurrance of a certain inconsistency between countries which, in their retail price policy, have adopted the assumption of setting up so-called equilibrium price, i.e., designating fairly high prices to adjust the demand to the supply, and countries which maintain low prices despite their small supply, opting for lines outside of stores and temporary shortages of goods on the market.

These differences in retail price policy may have fundamental significance in shaping the value of currencies in the sense of noncommerical payments and their mutual rates. By holding down prices through limiting supply, it is possible in principle to preserve a stable price level and the value of the currency, while the value of the currency of a partner who adjusts retail prices to the supply and limits demand will fall, thereby compelling him to change its rate in relation to the currency of the partner.

The differences in the level of services of retail trade (the so-called culture of trade) remains an open issue as well. A higher level of services, causing correspondingly increased outlays which are not compensated for by lower production costs, may result in a higher level of retail prices, thereby lowering the value of the currency of the given country in relation to a country in which the level of services is lower.

Departing from the strict adherence to the establishment of national currency rates and the conversion of the results of comparisons of the value of baskets of goods and services, however, did not solve the problem of deciding which should be the guiding principles in this regard under new conditions created by:

--shifting to a system of creeping prices in the foreign trade of CEMA countries;

--the occurrence of significant differences in the retail-price policy of particular CEMA countries.

The rapid growth of world prices that occurred after 1973 caused a change in the principles of the establishment of contract prices of CEMA countries. These countries decreed that contract prices in transferable rubles, beginning in 1976, would be determined annually on the basis of the average of world prices from the previous 5-year period, properly contracted in accordance with the decisions of the Ninth Session of CEMA. Owing to this, contract prices became moderating creeping prices which squeezed and delayed the current growth trend of world prices. This must bring about the steady drop in the purchasing power of the transferable ruble, the international currency of CEMA country calculations. This drop in the purchasing power of the transferable ruble is reflected in trade exchange only to the degree that conditions of exchange undergo change, i.e., the degree to which the level of export prices increases in relation to import prices (terms of trade [in English]). For noncommercial exchange, on the other hand, this drop in the purchasing power of the transferable ruble is of prime significance, since the equivalence of this exchange is altered through the imbalance of turnovers on this score in particular countries and through the occurrence of positive and negative balances.

Changes in the level of domestic prices of several CEMA countries which issue from distinct principles of the formation of these prices overlap these changes in the value of the transferable ruble. Some countries have adopted the assumption of maintaining the stable development of retail prices and of not passing on the domestic increase in contract prices directly to the market, but calculating these contract prices within the framework of the budget. Other countries, however, have decided to reflect the increase in contract prices in retail prices, causing a tendency for these prices to increase, thereby disrupting their stability. In this situation, holding national currency rates at an unchanging level would mean nothing more than burdening foreigners staying in a given country with the consequences of the adopted policy of reflecting the increase in contract prices in domestic prices (and, in turn, with the consequences of the drop in the value of the local currency). At the same time, this would create additional incentives for trips out of the given country, e.g., to make purchases in countries maintaining a stable level of domestic prices.

On the other hand, there are substantial divergences in the volume of domestic market supply among particular countries, as we have already noted.

All of this must only lead to the appearance of the problem of the equivalence of noncommercial calculations, the solution of which depends on the continued dynamic development of this exchange.

And here we come to the problem of tourism effectiveness, which may be considered on various planes and viewed in various profiles. In conjunction with this, it must be stated above all that the principles of establishing national currency rates which were adopted in the first period did not take tourism into consideration in practice, because this was not possible. It is impossible to construct a universal basket of tourist expenditures, primarily because it is impossible to determine its total magnitude. How many days will be used as a basis for the tourist's stay, if a tour spends a long period of time in one country (more than 10 days) and a short period of time in another? There is also the situation in which an incoming tour stays in a given country for a short period of time, and an outgoing tour is a long tour. Taking the average in this area may lead to significant distortions in the final results.

As we know, in addition to the typical tourist expenditures, such as the cost of upkeep or lodging, the tourist also incurs expenditures on in the purchase of goods, either because they are attractive to him, because their prices are lower, or because of the variety of styles and models. In every country this sort of purchase affects different goods; in the course of time these also change. It is impossible to be uniform about these goods, and this is what is demanded by the basket of goods and services.

The departure from the precise methods of determining rates through the use of the basket and the shift to negotiating rates based on the results of studies of baskets enables us to take into account tourist demand in the currencies at the exchange rate to a great degree. In this situation, countries with a developed incoming tourism by virtue of their landscape or climatic values may affect the establishment of the rate of exchange, which itself would take these elements into consideration. This is all the more so as in recent times the practice of regulating the magnitude of noncommercial turnovers by limiting the sale of one's payment means to banks of partner countries has become universal. It must be understood that this has resulted from the execution of a sort of accounting of the effectiveness of tourism coming in from particular countries carried out on the basis of a compulsory rate of exchange.

However, as we have already pointed out, since tourism turnovers do not exhaust the whole makeup of noncommercial turnovers, whereas in addition to them there are still other payments, thus the establishment of the level of the rate cannot occur with the exclusive consideration of the interests of tourism alone. It must be an index of purchasing power more broadly conceived, and above all it must be a sort of compromise which takes into account the fact of the existence of various payment structures occurring in particular countries which result in the formation of a general structure of noncommercial payments of all CEMA countries.

For the present, the shift into a bilateral setup of mutual national currency rates between interested countries in many cases has brought about the aforementioned appearance of a differentiated relationship of the national currency to the tranferable ruble as a unit of final accounting. This structure lacks a uniform standard of the effectiveness of outgoing or incoming tourism of a given country and, depending on the rates and ratios which appear, the effectiveness of tourism in a given country will vary. At the same time it should be pointed out that, to the extent that we have to deal with the varying effectiveness of exchange in trade exchange, contingent upon the price of a given item and, in addition to a uniform rate of exchange, the incentives used to stimulate or correct the mechanism of the operation of the rate, to this same extent the rate itself is differentiated in tourist exchange, which causes effectiveness to vary, depending upon the country with which this exchange occurs. This makes it extremely difficult to study the effectiveness of tourism, making necessar, the eventual working out of a method enabling the summarization of these variations in effectiveness in order to draw conclusions of the general effectiveness indispensable for macroeconomic considerations.

In considering the problem of tourism effectiveness and in constructing an economic accounting to this end, it is imperative to take into consideration whether the study is absolute or relative. A study of an absolute nature is a study in which a strictly defined point of reference exists as a sort of measure, which is the rate of national currencies. On the other hand, studies of a relative nature are those comparative studies relative to the formation of a payments balance, as well as to the results achieved in other fields of foreign exchange, taking the ratio of the national currency to the transferable ruble as a basis. In other words we may say that it is a study on the plane of the national currency rate in relationship to other national currencies and the ratio of the national currency to the transferable ruble.

We should also point out that the profitability accounting of the existing rate refers above all to people, since they buy foreign currency directly in exchange for their own according to the compulsory rate. On the other hand, the profitability accounting of the conversion ratio used refers to the state, since the final calculations are executed in transferable rubles.

Accounting in this area as regards people is simple. On the one hand, they have outlays for outgoing tourism in the form of costs: passport costs, transfers and the purchase of foreign currencies according to the compulsory rate; on the other, since they have a limited amount of the currency of the country to which they have traveled, they will determine whether their stay in that country costs more or less, and how much more or less than in their own country. They will also determine the nonmaterial benefits (landscape, monuments, warm sea waters) and material benefits in the form of the purchase of goods (the prices, the accessibility of sought-after goods on the market) to be gained.

The profitability accounting takes on particular significance at the point of exchange of national currency rates. For the citizen of a country which has raised its foreign-currency rate in the national currency, this means a cost increase for outgoing tourism. However, for a citizen of a country lowering its rate, the costs are reduced. This accounting also determines whether, in the case of limitations in the legal purchase of foreign currencies, the people will try to acquire these currencies in illegal ways, causing the creation of a blackmarket rate.

The accounting of economic authorities is more complex in this regard. As far as payments balance is concerned, what is of the essence is the role played by tourism turnovers within the whole structure of noncommercial turnovers, as well as the formation of the balance of tourism exchange, i.e., whether the exchange is an even exchange, whether a negative or positive balance occurs, and what its proportions are in terms of the given ratio to the transferable ruble.

In speaking of tourism effectiveness in the light of the change of the foreign currency rate in the national currency, we must also consider the problem of the flexibility of popular demand, both domestic and foreign, under the influence of these changes. This has major significane for the profitability of this change from the viewpoint of the formation of turnovers of the payments balance. The question is whether tourism expenditures remain at the same level or increase, and by how much.

The above remarks concerning an accounting of effectiveness touched upon a dynamic approach to a certain degree, namely, as we have noted, from the viewpoint of changes in the conditions of exchange under the influence of changes in the level of the rate or of the conversion. Of course, we may also study existing conditions alone, or studies may be conducted using a comparative, statistical approach. The effectiveness of outgoing tourism is fairly often compared to the effectiveness of the import of goods from this point of view. Such a comparison, however, under conditions of relatively high prices of imported articles in the national currency, which fulfills the function of redistributing the national income (a form of its own type for regulating turnovers), may lead to inappropriate conclusions about a supposedly less effective tourism. We must also not overlook the fact that in many cases it is impossible to replace tourism with import for many reasons, including the difficulty of purchasing articles of consumption in foreign trade.

In conjunction with this it appears that comparative studies should be conducted above all on the plane of the effectiveness of the export of goods as compared to the effectiveness of incoming tourism, since such tourism replaces the need for the export of goods, particularly in countries in which incoming tourism predominates, and then on the plane of the effectiveness of export as compared to the effectiveness of outgoing tourism to determine to what degree profits made in the national currency for the sale of foreign currencies cover expenditures for indispensable export, particularly in countries in which outgoing tourism predominates.[3]

It is understandable that under conditions of the fixing of mutual national currency rates in a bilateral procedure, these studies must also take into account the geography of incoming or outgoing tours.

As would be presumed, the results of these studies are of primary significance for the whole policy of the economic authorities with regard to tourism. Thus, if incoming tourism effectiveness is too slight, the authorities may undertake steps to limit its dimensions, as, e.g., by a fairly widespread regulation of the sale of its currency to banks of other countries or certain countries. On the other hand, if outgoing tourism seems unprofitable to the authorities, a fairly broad regulation of the allocation of foreign currencies to the country's citizens is introduced.

We must also be conscious of the fact, however, that a profitability accounting from the viewpoint of the economic authority may be out of line with the accounting of the people, leading to the creation of a black market and the rate created on this market. As a rule, this has the consequences of increasing regulation, in part by the imposition of the obligation of the exchange of a definite amount of currency in outgoing tourism.

In conjunction with this we must point out that both the rate and the conversion should be real, based on a compromise of sorts, so that the accounting of effectiveness would be of benefit to both sides, with limitations. The tendency to a one-sided maximalization of benefits can only lead to limiting the development of tourism.

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3. A variant of this sort of study may be a survey to determine whether the rate is overvalued or undervalued.

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INTERNATIONAL AFFAIRS

FUTURE CSSR-USSR TECHNOLOGICAL COOPERATION OUTLINED

Prague RUDE PRAVO in Czech 5 May 80 p 5

[Article by Eng Karel Gross, Ministry for Technical and Investment Development: "The Outlook for the Next Five-Year Plan"]

> [Text] Resolutions of the 15th CPCZ Congress confirmed that the significance of technoscientific progress in our economy is continuously increasing as the key factor for improving the effectiveness and quality of socialized labor. At the same time, there is a growing need for integrating our national economy into the international division of labor among socialist countries, primarily with the Soviet Union, whose vast technoscientific potential guarantees a solution for solving even the most complex problems.

The key position in mutual cooperation between the two countries in the field of science and technology is held by power engineering, the chemical industry, power machinery engineering, heavy engineering, agriculture, electronics, and the machine-took industry. Mutual cooperation in these vitally important sectors translates into considerable attainments in research and development of new and improvement of extant machinery, technological processes, facilities and materials, and results in stepped-up effectiveness of the means expended.

Results of Consultations

In keeping with the efforts being made to further expand and improve the efficiency of cooperation between the CSSR and the Soviet Union, consultations were held over the past two years in regard to the key problems of technoscientific policy till the year 1990 and coordination of plans for the development of science and technology in the years 1981-1985.

The result of the first stage of consultations was a preliminary agreement regarding cooperation in the solution of 63 interbranch and important branch problems in selected sectors. Primarily the effort to create the prerequisites for further expansion of specialization and cooperation in production and a stepped up mutual exchange of goods was the basic criterion in the selection of topics. Particular attention was paid to such cooperative problems that would result in development and production of new machinery and equipment, mechanisms, instrumentation, introduction of new technological processes, or substantial improvement of the technical level of products.

The second stage of consultations produced designation of specific topics and tasks, goals and techno-economical parameters of cooperation, deadlines for launching and completion of projects, together with the determination of the forms of cooperation and organization that are to implement it. This stage was terminated by the final consultation between the Federal Ministry for Technical and Investment Development and the State Council of the USSR for Science and Technology in December of last year.

The result is an agreement regarding cooperation in the solution of 328 problems and topics. It will bring about 140 new types of machinery and equipment and their incorporation into production, 14 new types of materials, adoption of 95 advanced technological processes, processing of 32 sets of technical and design documentation and a number of other tangible results.

Key Topics

Solution of 27 key problems is to be effected within the framework of both countries' state plans for the development of science and technology. These include exclusively problems of a material nature. Specifically, this concerns introducing into production 16 new types of machinery, equipment and materials, and adoption of 11 advanced technological processes.

For instance, it is planned to develop for the coal industry a tunneling system with mechanized piling in mining which will make it possible to increase the productivity of mining by a multiple of 2-2.5 and to decrease production costs and rated investments by a multiple of 1.5-2. Techno-scientific cooperation is to be carried out on a contract basis.

For the gas manufacturing industry it is planned to develop and produce a system for liquefying, transporting and storing natural gas. With the attainment of an output of 20 tons per hour the annual economic efficiency from its use will amount to around Kcs 70 million per year.

It is envisioned that cooperative efforts in the power machinery sector will concentrate on mutual development of steam and gas turbines of an improved design. Their introduction will make it possible to improve labor efficiency in gas and steam-gas generation facilities and improve their utilization in the variable part of the graph of electric load on power systems.

In the chemical industry sector the experts from both countries face formidable tasks. These concern primarily the development and application of important products of organic precision synthesis. For example, on the basis of a technological process developed jointly by the CSSR, the USSR and the GDR, it is planned to produce phthalocyanine pigments and dyes at an annual rate of at least 5,000 tons, enabling the above countries to largely meet their needs for these products. In addition, it is planned to implement production of mercaptobenzothiazole (a vulcanization agent for rubber) at the Kemerov Production Association Azot and at the plant Duslo Sala with an annual output of 22,000 tons.

In the building and road-construction machinery sector the combined efforts of both countries will provide for the development and production of all-purpose tower cranes with a lifting capacity of 12.5 tons and more. By 1983 it is planned to build crane prototypes based on a uniform normative-technical documentation answering the needs of plants in the CSSR, the Soviet Union and Yugoslavia, which is to participate in dealing with the task. In subsequent years, it is envisioned that the three countries will cooperate in series production at the crane production plant in Rzhev. Introduction of cranes into the construction sector will help to increase labor productivity while decreasing the weight of steel structures by 20 percent through the use of tubular steel, modern materials and advanced welding methods.

The machine-tool and tool production industry is a traditional area of technoscientific cooperation. In this sector it is planned to develop a computer-controlled complex automated system for the production of casing components. Its application in the plants of the Ministry of Metallurgy and Heavy Engineering of the CSSR will help to increase the productivity of labor in basic and auxiliary operations by a multiple of approximately 1.5-2.

The list of important technoscientific problems further contains joint tasks for the electrotechnical industry, computer engineering and control systems, telecommunications, the microbiological industry, agriculture, the meat and dairy industries, medicine and the pharmaceutical industry.

The remaining 301 branch topics will be dealt with in cooperation between individual ministries, or other central organs, or within the framework of permanent branch work groups. From among these, 16 topics relate to fuel and power engineering, 18 to ferrous and non-ferrous metallurgy, 35 to heavy engineering, 37 to general engineering, 24 to electrotechnical industry, electronics and telecommunications, 40 to the chemical industry, petrochemistry and the paper and pulp industry, 27 to agriculture and nourishment, and 27 to medicine.

Key Path of Development

Results of the second stage of consultations were discussed at the 31st session, in December 1979, by the Permanent Subcommittee for Technoscientific Cooperation between the CSSR and the USSR. In regards to this problem it adopted a number of resolutions designed to complete coping with some unresolved problems and to deal with the third stage of the program.

Currently, while Czechoslovak and Soviet ministries are preparing and ratifying agreements, programs and working plans for cooperation for the years 1981 through 1985 and, with participation by foreign trade concerns, are approving and closing the requisite contracts, it is imperative that the mentioned documents provide for clear division of labor and shortening the terms for completion of agreed upon tasks, that they include the development of prototypes and production of the first machinery series as well as a timely resolution of the problems of specialization and cooperation. In connection with the above, it will be advisable to jointly examine the economic feasibility of procuring licenses.

Now more than ever we must channel our resources into the decisive trends of research, development and production. For that reason, a further expansion and intensification of cooperation with the Soviet Union as well as linking our technical and creative capacities with the Soviet techno-scientific potential represents for us cne of the key paths toward accelerating the development of science and technology and the solution of great socio-economic tasks which will confront our national economy in the coming five-year plans.

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CZECHOSLOVAKIA

SOME FIVE-YEAR PLAN FULFILLMENTS NOTED

Area of Transportation

Prague SVET HOSPODARSTVI in Slovak 9 Apr 80 pp 1, 2

[Article by Milan Kozak, Federal Transportation Ministry: "Demanding Tasks in Transportation"]

> [Text] The transportation sector received a very urgent assignment at the 14th CPCZ Central Committee Session: to formulate a set of comprehensive measures to assist transportation as a whole in assuring all of the year's transportation requirements. The work on this document is now complete; the document reflects the outcome of numerous difficult discussions, analyses and necessary evaluations of past performances. It was necessary to start from these results so that the new directives would be on the whole realistic and fulfillable.

The growth rate of the transportation sector has slowed to some extent over the course of the past 4 years. According to Sixth Five-Year Plan directives, transportation was supposed to achieve an 18.5 percent increase. However, reality has seen a figure 3 percentage points lower. On the other hand, railroad transport has increased by 4.4 percent, truck transport [Czechoslovak Automobile Transport] by almost 9 percent, and water transport by 54.4 percent.

Overall, the division of transportation work between public and factory highway travel also progressed favorably, although even here too the original guidelines were not adhered to, and the percentage which Czechoslovak Automobile Transport should have assumed last year was about 1 percent lower than projected. Despite various problems in capital investment and the assuring of new, more efficient facilities throughout the whole Czechoslovak transportation system, it is necessary to state that the critical transportation assignments, and the principal requirements of the national economy and the population were fulfilled.

The first 2 months of this year indicated that the transportation system was well prepared to handle winter conditions, but at the same time some unused capacity was "discovered" in the work of shippers who did not sufficiently utilize available cargo area. It will be difficult to compensate for the resultant shortfalls in transportation, because this year's objectives are still higher than those of 1979, totalling, for the whole transportation system, more than 1.5 billion tons. In addition, the transportation system must assure this year the transport of participants to the Czechoslovak Spartakiad in Prague, and of sportsmen to the 22nd Olympic Games in Moscow. The total number of passengers transported (including those on urban mass transit) will thus reach about 5.17 billion persons.

The main task of railroad transportation still remains the hauling of solid fuels, reaching this year more than 85 million tons. This amount represents an increase of 1.7 percent, or 4 million tons in comparison with last year. The overall transportation task of the railroad is, however, 5 million tons more than last year.

The 1980 order of priorities is, then, the same as in past years. Coal transportation will have first priority, along with construction materials and other bulk substances. Railroad workers and shippers must devote extraordinary attention to cargoes for export to the Soviet Union, which will be about 10 percent higher than last year. However, imports will also increase in comparison with last year, by more than 12 percent. In 1980 two-thirds of our imports from the Soviet Union will be iron ore.

The volume of water transport will increase in comparison with last year by about 16 percent, meaning an increase of about 10.2 million tons. Water transportation further relieves the railroads, above all, of the hauling of more than 3.5 million tons of brown coal to Chvaletice. The plan projects the movement by water of more than 2 million tons of construction materials.

Air transport has the assigment this year of carrying 2 million travellers and of spraying almost 5 million hectares of land in aerial-chemical agricultural work.

Due to the completion of the limited access highway connecting Prague, Brno and Bratislava, it will be possible this year to reduce airline connections between these cities, replacing them with other means of transport, in particular express bus connections.

Each of the public transportation sectors is pursuing individually one of the most important goals, the maximum reduction in the energy-intensiveness of transport. This is precisely the purpose of the current preparation of the so-called winter graph for railroad and bus transportation, especially regarding the carrying of passengers. The coordination of the schedules of the Czechoslovak State Railroads and Czechoslovak Automobile Transport, and a systematic approach to limiting inefficient or redundant transport connections will be significant contributions not only to the conservation of fuel and electric energy, but also to overall transportation efficiency.

The agenda for the final year of the Sixth Five-Year Plan includes the very urgent need to minimize the transportation costs per unit of output. This means that the established and planned transportation schedules must be approached, above all from the point of view of shippers, more responsibly than heretofore, especially when one considers the extraordinary extent of supplier-consumer relationships or certain undesirable cooperative agreements.

The resolution of the major problems of the Czechoslovak transportation system is, in many ways, directly dependent on the successful implementation of capital investment objectives and on the deliveries, on schedule, of transportation stock, particularly railroad cars, locomotives and other apparatus relevant to the modernization and rationalization of the transportation process.

The significant shift in investment activity from the eastern areas of the country, and its concentration in the North Bohemian Kraj, has also contributed to the required assurance of the fuel and energy base. At the same time, however, it remains necessary to continue with the resolution of our investment projects in other areas of our country as well, including Eastern Slovakia, the construction of a southern rail line and the completion of connecting track sections outfitted with an automatic block installation and modern safety devices in the stations, both of which are closely related to work force conservation.

The extent of these activities in the whole transportation sector represented, in the Sixth Five-Year Plan, more than Kcs 40 billion allotted to specific construction projects. Of this sum about Kcs 12 billion was allotted to the railroad, Kcs 829 million to water transport, and air transport received Kcs 688 million. More than Kcs 8 billion went to the construction of the limited access highway.

It is no secret that these resources could not be fully utilized due to systemic limitations. For instance, in railroad transport no more than Kcs 1 billion will be invested before the end of the current five-year plan. Besides organizations managed by construction ministries, the construction-erector organizations of the transportation sector have a share of this credit. The reasons for this lagging behind are well known and consist of a significant number of incomplete projects, shortcomings in the organization of construction work, insufficient design preparation and the failure to adhere to the construction deadlines established by a design, or in a lack of coordination of deadlines and, in many cases, shortfalls as well in the deliveries of the materials needed for a particular project.

This situation is also influenced by the fact that the transportation sector, often at the expense of its own projects, has helped substantially in the construction of the Metro, of the basic communications system of Prague and in other non-sectoral activities. In the current five-year plan this share reached, in the Railroad Construction enterprise for example, a total extent of roughly Kcs 1.5 billion.

Coal and Lignite Mining

Prague SVET HOSPODARSTVI in Czech 15 Apr 80 p 1

[Article by Roman Fojtik, Federal Office of Statistics: "Results of Coal and Lignite Mining"]

> [Text] Workers of the Federal Ministry of Fuels and Energy prepared responsibly for the past winter by creating sufficient fuel reserves. And it was precisely due to this extrasupply that there were no problems in the first quarter in electricity, heat and gas production and that consumers did not feel the effects of shortfalls in mining during the first months of this year.

Coal concerns in March fulfilled 99.8 percent of the plan by mining 10.852 million tons of coal and lignite. The 0.2 percent underfulfillment represents 26,000 tons of coal. Overall quarterly results were, however, much less favorable. The established target for this period was underfulfilled by 999,000 tons, although a total of 31.196 million tons of coal were extracted. Of the total yearly planned volume of 124.4 million tons, 25.9 percent or 32.195 million tons was to be mined in the January to March period. Actual performance represents 25.1 percent of the yearly state plan.

Two districts assure the supply of black coal. Despite the fact that mining and geological conditions of extraction are becoming more complex from year to year, i.e. the coal is found at ever greater depths, seam thickness is decreasing, etc., the Ostrausko-Karvinske mining concerns and the Kladno Coal Mines have been uniformly meeting their extraction targets since the beginning of the year. The Ostrava miners extracted, between January and March of this year, 6.486 million tons of quality black coal and thereby overfulfilled their plan by almost 70,000 tons (1.1 percent). During the same period 920,000 tons of coal were mined in the Kladno district, representing a 0.5 percent overfulfillment of the quarterly target (by 4,523 tons). Last year only the ULB [Lignite and Coal Mines] in Prievidza did not fulfill the plan. So far this year Slovak miners have coped with projected extraction targets. To be sure, the Handlova Mine failed to fulfill the March plan by 13,000 tons, but overall the district fulfilled 100.5 percent of the plan, making its total plan fulfillment since the beginning of the year 100.2 percent.

The Sokolov Brown Coal Mines and Briquette Plants have been overfulfilling their established targets since the beginning of the year. While January and February performance was not that outstanding, in March the workers of the Sokolov Brown Coal Mines and Briquette Plants mined 1.886 million tons, 78,000 tons (4.4 percent) more than projected by the plan. During the whole first quarter they supplied 90,000 tons (1.7 percent) in excess of planned targets. Of particular significance has been the overfulfillment of briquette production by 106.4 percent, and that of classified types of coal for the domestic market. There is also a favorable situation in the district in regard to overburden removal. More than 100,000 cubic meters of rock in excess of the plan were removed in the first quarter.

A critical percentage of our total coal production (more than 50 percent) is concentrated in the Most coal basin. Many factors influence extraction levels here, including the lower reliability of the mining machinery, the failure rate of the long-distance conveyor belts, the quality of rail surfaces, insufficient spare parts, particularly in terms of variety, problems with railroad car adaptation and coal shipment, etc. Most of these problems have solutions, as they are caused primarily by people. On the other hand, the single factor absolutely independent of man and totally unpredictable, unfavorable weather, which prevailed not only during the final few days of March but almost throughout the quarter, has shown how all the effort and dedication of people and modern technology can often be rendered powerless. Snow, rain, thick fogs have been the characteristic weather of the first 3 months of this year in the Most district. The torrents of water and wet snow created a coating of mud in the mining areas and their access roads in which even the heaviest transportation machinery became stuck. The simple changing of crews on gigantic machines became a problem resolvable only with the help of bulldozers.

The North Bohemian miners have more than once in the past convinced us of their responsible attitude to work. Although the shortfall has been large, 139,000 tons in March alone and 1.167 million tons for the whole quarter (6.5 working days at the Most North Bohemian Lignite Mines), the workers of the Most district will do everything [possible] so that in the course of the summer months, when extraction conditions are more favorable, this shortfall may be substantially reduced. The conditions mentioned above also affected earth removal operations in this district. From January to March 31,014,000 cubic meters were removed out of a yearly target of 172,100,000 cubic meters (including the TC-3), i.e. 18 percent of the yearly target, representing a plan-fulfillment rate of 79.3 percent. This translates into a quarterly loss of more than 8 million cubic meters of overburden. In the north branch of the Maxim Gorky Open Pit Mine the TC-3 equipment unit is now being tested. Although its performance in March improved slightly in comparison with previous months (reaching 50 percent of capacity), this remains insufficient in relation to planned targets, the assurance of which in the above-mentioned districts is important, above all, for the production of classified types of coal. The K 10,000 giant excavator of the TC-3 unit is supposed to remove 17 million cubic meters of earth this year. Of the 5 million cubic meters assigned to it for the first quarter, only 40.5 percent was removed, representing a loss of almost 3 million cubic meters.

Electrical energy was supplied without interruption. Electric power plants, well supplied with fuel, were able to meet even the increased demands of heavy users. The reliable operation of the productive and distributive sectors of the gas system, in addition to sufficient stockpiles of natural gas and coal gas in underground tanks, made possible the uninterrupted satisfaction of demands for heating gas.

The evolution of the fuel and energy situation in the course of the first quarter of this year has again demonstrated the crucial importance of responsible preparation for the winter season. It is no exaggeration to say that our actions today determine how we shall cope with next winter.

Construction Industry

Prague SVET HOSPODARSTVI in Czech 15 Apr 80 p 2

[Article by Miroslav Hladik: "Plan Fulfillment in CSR Construction"]

> [Text] The 1979 State Plan decreed that construction enterprises managed by the CSR government increase by 5 percent the volume of work performed by their own workers. The construction enterprises succeeded in surpassing this growth rate only in July and August, when they achieved rates of 8.7 and 6.1 percent respectively. The planned yearly rate was not achieved in the remaining months, among which the first quarter was especially unfavorable, seeing a steep 3.6 percent decline in comparison with the previous year.

For the whole of 1979 the volume of construction work increased by 2.5 percent (Kcs 1.1 billion), thereby fulfilling 97.6 percent of the Federal Plan. This represents a shortfall in production equal to 6 working days.

Fifty enterprises managed by the CSR government, 39.6 percent of the total, failed to fulfill the plan for construction work. This included 10 of the 33 enterprises affiliated with the CSR Ministry of Building, 2 of the 7 enterprises connected with the CSR Ministry of Agriculture and Nutrition, and 29 of the 86 district construction enterprises. The total yearly performance was unfavorably influenced by that of the first quarter when, due to the critical situation in the fuel and energy base, 74 percent of the construction enterprises failed to fulfill plan targets, causing losses of Kcs 740 million.

The planned structure of construction work, according to contracted agreements, was not adhered to due to a low percentage of work carried out in the area of capital construction (72.7 percent compared to the planned level of 74.3 percent), a situation which led to plan underfulfillment in comprehensive housing construction and in overall capital construction. In the structure of work on comprehensive housing construction 69.4 percent of the total shortfall of Kcs 1 billion was in the area of technical outfitting, 19.1 percent in the area of social outfitting and 11.5 percent in the area of apartment construction. Persistent unevenness in the transferral of apartments to investors during the year led to a situation in which, despite the transferral of 45.4 percent of the apartments in the fourth quarter, construction enterprises managed by the CSR government fulfilled their yearly target for completed apartments by only 92.5 percent and transferred 3,866 fewer apartments to investors than planned. The condition of incomplete apartments as of 31 December 1979 indicates, moreover, that the 1980 plan will also be fulfilled only inconsistently.

Plan nonfulfillment in construction work on capital investment and comprehensive housing construction showed up negatively as well in areas of centralized capital investment. Work conducted on capital investment projects in Prague fell Kcs 751 million short of planned targets, and Kcs 382 million short in the North Bohemian region. Comprehensive housing construction, according to enterprise plans, fell Kcs 625 million short of planned levels for Prague, and Kcs 260 million short of targets for the North Bohemian region. [rest of paragraph missing]

Construction enterprises managed by the CSR government fulfilled 98.2 percent of the labor productivity plan, even though the increase in productivity was 1.9 points lower than projected by the Federal Plan. In the relation between increased labor productivity and average monthly wages, productivity remained ahead of wage increases in enterprises in all sectors managed by the CSR government, although to a lesser extent than established by the Federal Plan.

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UNDERUTILIZATION OF FOREIGN LICENSES CRITICIZED

Bratislava SMENA in Slovak 15 Apr 80 p 4

[Interview of Dr Jan Brandys, director of the Department of Licenses, Inventions, Improvement Suggestions and Information of the Federal Ministry of Machine Building by Geno Penkovsky: "Licenses: The Most Economical Means"]

> [Text] The world today considers the buying and selling of "knowledge," or more exactly the conduct of a wise license policy, a very efficient means of economic development. With the proper utilization of these advantages one can save money, but most of all time. But time is money, and there is never enough of it to go around. The more so when it is turned into goods which everyone needs or would like to have. What is the situation in this area in that sector managed by the Federal Ministry of Machine Building and, especially, in its Slovak enterprises. We spoke about this with Dr Jan Brandys, director of the Department of Licenses, Inventions, Improvement Proposals and Information of the above Ministry.

[Question] Licenses purchased abroad have more than once been used only partially, or not at all...

[Answer] For Slovakia, there is not a single case of an imported license not being used at all. There do, however, exist economic production units, where licenses are used less frequently in comparison with the original specifications established in technical-economic analyses. Specifically, the Strojsmalt economic production unit has 2 licenses, of which it utilizes only 51 percent. The Martin Heavy Machinery Factories economic production unit has four large licenses. They are used as follows: 90 percent in the production of Pilstick motors, 92 percent in the production of Poclain self-propelled hydraulic excavators (both specific to the Martin Heavy Machinery Factories), 70 percent in the production of Schuller high-speed presses for rotor and stator plates at the Kosice Heavy Machinery Factory, and 141 percent in the production of Sanner hydrostatic transmissions at the Dubnice Heavy Machinery Factories. At the Povazska Bystrice Antifriction Bearing Factory economic production unit they hold a license from socialist states which they utilize at a level of about 100 percent. These are results from 1978; last year's performance was a little better.

[Question] What is the cause of this differential utilization of licenses?

[Answer] Specifically, the Sanner license is used not only for us, but also for the Soviet Union, which we counted on originally. This accounts for the extra 41 percent of utilization.

[Question] And what about those licenses under "100"?

[Answer] If only they were only a little below 100, but for instance both licenses of the Strojsmalt economic production unit scarcely surpass a level of one-half utilization. One serves for washing machine production, the other for the production of ballast resistors for light bulbs and mercury vapor lamps. The unfavorable situation regarding their utilization was influenced by the overall situation prevalent at that time in washing machine production: about 45 percent of them were returned to the assembly line due to interior faults, and therefore did not make their way into final production.

[Question] You still haven't exhausted the topic...

[Answer] It is always necessary to decide when it makes sense to purchase a license and when it does not. It is a matter of prudently purchasing economically advantageous licenses and seeing that they are implemented. According to the law, this means that in a technical-economic analysis of the advantages in purchasing a given license, not 1 of a series of 22 prescribed specifications and confirmations may be omitted. One of these is the expected unit production volume and, in its financial expression, the unit volume for each year of the period of license validity. This analysis provides an overall view of the balance of foreign currency incomes and costs stemming from a given license, determines its profitability as well as productivity in terms of rubles and dollars and, overall, its recoverability. It is always desirable to compare reality with the original projections. This is essentially a question of demonstrating the advantageousness of a license, but it must not be elevated in importance above the plan...

[Question] Full license utilization does not have to correspond to social directives expressed by the plan?

[Answer] When, for instance, in the Martin Heavy Machinery Factory, economic production unit, where they manufacture a broad assortment of products, they are deciding the direction in which they wish to go they may not attach greater importance to the numbers which express the advantageousness of license utilization than to the needs expressed in the plan. When the plan contains different data about license utilization than contained in the technical-economic analysis, a situation can develop in which the plan is successfully fulfilled, while the recoverability of the license is extended.

[Question] This sounds a little like an excuse to me...

[Answer] It is not true in every instance, nor is it necessarily justified. It is very often a case of shortcomings of a subjective character.

[Question] The whole matter gives me the impression that in some instances the importing of licenses has not been sufficiently prudent, thought out...

[Answer] A study carried out by the SSR People's Inspection Committee, the results of which were confirmed by the Federal government, led, among other things, to the conclusion that a number of legal guidelines in the area of planning and the assuring of raw materials for licensed production must be modified. It has been proposed that license payments come from economic production unit resources, on the grounds that the license ought to pay for itself. Many problems have been caused for us by commitments stemming from old license agreements from the period of crisis, when licenses were more than once purchased for unsound reasons. Today most foreign currency resources are taken up by licenses from the past, so that there are practically no resources left for new ones. So we have put an end to irresponsible license purchases. The government has laid down a clear directive.

[Question] Could you be more specific?

[Answer] Take the production of textile machines, machine tools or cars. They are our largest export items to the West; they represent Kcs 6 billion of value during the Sixth Five-Year Plan. During the previous two five-year plans we did not need licenses for their production, but with the development of electronics, control systems and the like the situation has changed. Several of our export trading partners are rejecting additional Czechoslovak machinery and replacing it with foreign brands. The result? They debit our account in these instances, which naturally lowers our foreign currency income. Therefore, for instance, it is essential that we purchase licenses of this type, but with what?

[Question] How is the decision made to import a given license?

[Answer] The basic rule is that the relevant ministry, in our sector this is us, announce its approval of the license purchase and its conditions: how much it will cost, how long it will contribute to our productive activities, the duration of preproduction preparations, the level of imports. Our decisions are, to be sure, dependent on the material viewpoint of the Federal Ministry of Technical and Investment Development.

[Question] What damage has been caused the state by the insufficient utilization of the above-mentioned licenses at the Strojsmalt economic production unit?

[Answer] We are paying an average of 3 to 5 million foreign currency crowns in FOB prices for the license in the course of the whole utilization period. To this we must add an equal figure to cover the importing of resources needed in the production of certain components, apparatus, raw materials, etc. So for the approximately 10 years of utilization we will pay a minimum of 10 million foreign currency crowns. For example, in 1978 we paid a total of 80 million foreign currency crowns for licenses, half of which was taken up by payments for old licenses.

[Question] Do you feel that the ministry--economic production unit--enterprise relationship is in order in this case?

[Answer] In the case of licenses, I guess, this relationship is influenced by the psychological fact that a license is something special. At times we use them to make up for shortfalls, at other times we gain a new, quality product or time. The more rigorous approval procedure for their purchase leads to a situation in which both enterprises and economic production units try as hard as possible to demonstrate the maximum advantageousness of those licenses which they want. At the same time they fail to consider that negotiations take, for all practical purposes, a year and a half, preproduction preparations just about as long and, when we add delivery schedules to the above you are talking about a period of 4 to 5 years. They don't see that the imprudent purchase of a license will return to them like a boomerang during the course of its implementation. Sometimes the advantages are lost due to price inflation during this period, as was the case, for instance, with the above-mentioned Poclain license, where this reached 12 percent per year. An agreement, in fact, almost always contains a clause stipulating that the license was purchased in prices of the current year.

[Question] What does the Ministry do when economic production units or enterprises do not deal with licenses with sufficient frugality?

[Answer] In clear cases where there is evident fault, we have forced them to undertake relevant procedures, including the punishment of individuals. This was the case with the Strojsmalt economic production unit, which also had to undertake measures to make up for production shortfalls. At the same time it must confirm that there was no mistake in the figures presented in the technical-economic analysis.

[Question] We have already spoken of the direct damages from insufficient license utilization. Besides these, however, something else has escaped our attention. Or am I wrong?

[Answer] Licensed production represents about 3 to 4 percent of production volume in our sector, not counting specialized production. During the Sixth Five-Year Plan we are allotting about 4.4 billion foreign currency crowns to licensed production and we will earn precisely twice that amount. Even given the current shortcomings, this is very advantageous activity. When, however, we compare the data on all licenses as presented in the technical-economic analyses, we discover that we should be earning more.

For instance, according to this data, the overall income from licensed production should represent not 8.8 billion, but 11 billion foreign currency crowns. Also, the deposit for license purchase should be about 5 billion foreign currency crowns greater. In comparison with the plan, however, we are within limits. Altogether, out of 90 licenses we are not performing up to expectations in 7, while exceeding projections in others, so that they are basically in balance. Such overall comparisons cannot, however, be a cause of satisfaction.

[Question] What are the incentives for license utilization?

[Answer] Current regulations do not pay sufficient attention to this, neither in cases of good agreements or license implementation, nor in cases of the sale of our license to foreign countries. This is true in spite of the fact that certain measures do exist.

[Question] The sale of our licenses isn't being neglected.

[Answer] Not long ago sales were at a good level. We sold licenses for textile machine production, especially the BD-200, to Spain and to America. As late as the beginning of the Sixth Five-Year Plan we were world leaders in this area, and therefore partners were interested in us. Today, however, we no longer hold this position in the textile machinery industry, and the sale of licenses is becoming much more complicated. And in other sectors, especially in electronics, there are still greater difficulties.

[Question] How was last year in terms of the sale of our licenses?

[Answer] License payments for the year, credited to our account, represent about Kcs 8 million. To this one must add the relevant export of raw materials, components and other parts needed for licensed production, but even this sum fluctuates at a level of only about 100 million foreign currency crowns. This is too little. We are hampered very much by the slow testing of individual prototypes. A good idea comes to life only slowly. I cite as an example the pressure casting of heads for internal combustion engines. It is a much simpler process than machined production. The Japanese were very interested in this type of license, but backed out of an agreement because the prototype had not been fully tested. Overall, however, Polytechna is more oriented to the purchase of licenses than to their sale, so the advertisement of our innovations lags behind.

[Question] So should we hang our heads?

[Answer] We know that we could sell more. We must be more flexible, however. We are considering an experiment in this sector which could support this flexibility. In the next five-year plan we want to assign to at least two economic production units a foreign currency profit from licenses of 2 percent of their outlays on a scientific-research base. And something else! Until now the situation has been that if an enterprise gains resources through the sale of an active license, it has been considered as unplanned income. It has then been taken away, for practical purposes, in the form of a high transfer from unplanned profits. This barrier is being eliminated and the game will be played by new rules in the upcoming five-year plan. Their objective will be to stimulate enterprises to offer and to sell licenses, and to provide a material incentive for those people who are responsible for their successful exportation. We believe that this will help improve the situation. Finally, other intelligent regulations are being prepared to apply to the purchasing of licenses.

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INVENTORY DEVELOPMENTS IN SIXTH FIVE-YEAR PLAN DISCUSSED

Prague FINANCE A UVER in Czech No 3, 1980 pp 161-166

[Article by Eng Pavel Buska and Dr Jiri Hrdy: "Inventory developments in Sixth Five-Year Plan"]

[Text] The dynamics and the character of the generation of the gross national product and national revenue, and its distribution and utilization, are legitimately reflected in the state, structure and level of the utilization of inventories in the national economy. Deficiencies in the process of expanded manufacturing result on the one hand in purposeless amassing of inventories and freezing of a part of the national material and financial resources and on the other hand lead to the shortage of other supplies needed to insure a flow in the manufacturing process, thus multiplying the consequences of the primary problems.

In the system of economic relations, inventories thus actively influence the production process and distribution and the final phase of the meeting of demands both in foreign trade production and relations and in the area of national and private consumption. The inventories only fulfill this function, however, when they are created at the needed level and structure. Shortages of investories bring about deficiencies in production, foreign trade and supplies to the population, while excess inventories tie up and freeze the financial means of society, increase the risk of physical depreciation and moral weariness (as published), and raise storage expenses and demands for investments in storage facilities.

Considerable means are still tied up uneconomically in the inventories of the economic organizations of our economy, and the level of their utilization has not been fully satisfactory for a number of years. Shortcomings of our economy in using inventories have been documented by the relatively high share of the rise of inventories in the used national revenue and in the total accumulation in individual years. This is clearly seen from the comparison of these indicators with some industrially developed socialist countries in Table 1.

Table 1: Share of the increase of inventories and reserves in the realized national revenue in percent

	Poland	Hungary	GDR	CSSR
1970	6,0	6,3	3,7	6,2
71	7,5	10,7	3,8	4,1
72	6,9	2,5	3,6	3,5
73	7,8	1,0	3,8	4,6
74	8,7	8,0	3,9	5,7
75	7,0	2,4	2,9	5,0
avg 1970--75	7,3	5,0	3,6	4,9

Development of inventories in the CSSR at the close of the Fifth Five-Year Plan showed a substantial deterioration which still persisted at the beginning of the Sixth Five-Year Plan. In subsequent years the level of utilization of inventories has improved and stabilized, but in 1979 it again showed a substantial deterioration (Table 2).

Table 2: Share of the rise in inventories and reserves in the national revenue used in the CSSR in percent.

1976	4,0
1977	2,8
1978	3,1
1979 (expected)	3,6
1980 (planned)	3,0

Goals of the Sixth Five-Year Plan in the area of inventories

Deterioration of the level of inventories in the national economy in the second half ot the Fifth Five-Year Plan and their inappropriate structure and localization were projected adversely in the starting base of the Sixth Five-Year Plan. To insure a higher effectiveness of economy, the Sixth Five-Year Plan therefore included demanding tasks in the area of inventories and an improvement of all basic indicators of inventory developments was projected against the actual achievements in the period of the Fifth Five-Year Plan. A number of measures at all levels of the management of national economy were adopted to achieve the demanding tasks.

The Sixth Five-Year Plan assumes that:

--inventories in the national economy will increase on the whole by Kcs 70.6 billions (23.7 percent), i.e., an average of Kcs 14.1 billions annually. In the period of the Fifth Five-Year Plan the increase of inventories amounted to Kcs 77.1 billions (35 percent) and the average annual increase of inventories was 15.4 billions (6.1 percent);

--turnover time of inventories in the industry and construction will accelerate by 6.3 days (in the Fifth Five-Year Plan the turnover time of inventories slowed down by 0.5 day);

--the share of the inventories in the national product will decline from 30.5 percent in 1975 to 29.5 percent in 1980;

--the share of the increase of inventories in the national revenue should amount to 2.9 percent (in the Fifth Five-Year Plan, 4.1 percent), in the total accumulation to 12.2 percent;

--the structure of inventories in the national economy will improve, namely through a quicker rise of inventories in the trade and agriculture (growth index 125.6 percent) than in the industry and construction (growth index 123.3 percent).

To fulfill these goals, the Sixth Five-Year Plan considered firm implementation of economies in the utilization of inventories with simultaneous mobilization of the existing reserves, especially in the production enterprises of industry and construction which from this aspect are decisive. It assumed that:

--the inventories in industry and construction will rise by only 23.3 percent, i.e., by Kcs 31.1 billions; in relation to the planned growth of productivity this would enable utilization of material and financial resources in the amount of Kcs 14 billions;

--in accord with the planned change in structure, domestic trade inventories will be supplemented, while assortments will be concurrently expanded and improved.

Table 3: Planned inventory growth in the Sixth Five-Year Plan

	in billion Kcs	in percent
National economy total	+70.6	+23.7
of which:		
industry and construction	+31.1	+23.3
agriculture and nutrition (Incl. Unified Agricultural Cooperative)	+18.1	+22.9
domestic trade (incl. Union of Consumer Cooperatives)	+14.2	+29.6
other organizations	+ 7.2	+19.2

A number of measures at all levels of the national economy were adopted in the course of the Sixth Five-Year Plan to insure the demanding tasks.

Resolution of the government of the CSSR No 128/1976 set forth the basic measures of the system. Evaluation of the adopted measures was approved by resolution of the government of the CSSR No 189/1977. A set of measures aimed at perfecting the control of material relationships was adopted by the government of the CSSR by resolution No 15/1978; its consequences, among other things, are the new norms of inventories as of 31 December 1979. The bank evaluated the effectiveness of these measures in 1979 and the basic conclusions are contained in the article of the general director Eng Mitro in HOSPODARSKE NOVINY No 49, 1979 ("Inventories Viewed by the Bank").

Actual development of inventories in the Sixth Five-Year Plan

With the continuing dynamic development of the economy the generation of higher inventories at the beginning of the Sixth Five-Year Plan was affected not only by external influences but also by internal problems and shortcomings. The generation of higher inventories was affected by some influences whose process was desirable and related to further perspective development: in particular and a higher innovation effort; expansion of cooperation and specialized actions; realization of materiel demanding activities such as "Sojuz;" the nuclear program; the pipeline program, etc. The time cumulation of these actions manifestly affected the inventory growth at the close of the Fifth and the beginning of the Sixth Five-Year Plans.

In the next 2 years of the Sixth Five-Year Plan one saw the effect of the price increases of imported raw materials and supplies which reduced the physical volume of imports, and the shortage of imported raw materials intensified the existing problems in supplier-consumer relations. A considerable quantity of the accumulated raw materials was utilized and thus, despite the slowdown of the rate of growth of production and outputs, there was an improved utilization of inventories. Increased efforts to optimalize the development of inventories and utilization of reserves from the period of the Fifth Five-Year Plan brought partial results in 1977 and 1978.

Inventories in the national economy will rise in the Sixth Five-Year Plan on the whole by Kcs 74.1 billions, i.e., on the average by Kcs 14.8 billions annually. The increase of inventories will thus approach the goals of the Sixth Five-Year Plan (Table 4.)

Table 4

	6th 5-yr plan			5th 5-yr plan
	5-yr plan	annual plans 1976-80	expect. actual 1976-80	(actual)
in billions Kcs	+70.6	+63.5	+74.1	+77.1
in percent	+23.7	+21.3	+24.7	+35.0
average annual increase in billion Kcs	+14.1	+12.7	+14.8	+15.4

In contrast it may be expected that the goals of the Sixth Five-Year Plan in the area of basic economic indicators will not be met:

a. according to the current estimates, to insure the process of expanded manufacturing, one would need a greater volume of inventories in the period of the Sixth Five-Year Plan than in the period of the previous five-year plan (the Sixth Five-Year Plan on the contrary assumed its marked decrease). The main reason for the expected development is especially the assumed slower rate of growth dynamics of the economy than planned; and to a lesser degree, an overplanned increase of inventories (Table 5).

Table 5

Index	Annual national product 1980/1975 1975/1970	Inventories at the end 1980/1975 1975/1970	Difference between inventory rise and national product
Fifth Five-Year Plan actual	134.7	135.0	+0.3
Sixth Five-Year Plan expected, actual	122.9	125.0	+2.1
Sixth Five-Year Plan Planned	127.3	123.7	-3.0

b. a greater share of the newly created materiel and financial resources than considered in the plan will go into the increase of inventories in the period of the Sixth Five-Year Plan (the planned share of the rise of inventories in the generated national revenue amounts to 2.9 percent, the expected actual 3.2 percent). In other determinative factors the level assumed by the Sixth Five-Year Plan will not be reached either (increase of inventories will be 1.3 points higher than in the plan, and the lead of the rate of growth of national revenue over the growth of national product will be lesser by 3.3 points);

c. the tendencies listed will influence decisively development in the industry and construction fields which in inventory increase will exceed by 4.6 points the assumption of the Sixth Five-Year Plan. Considering that the planned growth of production and outputs will not be reached, the acceleration of the turnover time of inventories will reach only 0.7 of a day, while the Sixth Five-Year projects 6.3 days.

Inventory developments in individual fields

The expected excess over the planned inventory developments in the organizations of centrally managed industries and construction is the result of the deterioration of the inventory structure, and it is shared especially by the sectors of the general machinery manufacture (plus Kcs 2.9 billions) and construction (plus Kcs 3 billions). The unfavorable development of the inventory structure is characterized by a quicker increase of supplies of materials and unfinished production (by 37.2 percent) than the rise of inventories of finished products and goods (by 18.4 percent).

Table 6

(0)	(1) 6. 5LP		(2) oček. skut.		(3) rozdíl	
	v mld Kčs (4)	v % (5)	v mld Kčs (4)	v % (5)	v mld Kčs (4)	v % (5)
národní hospodářství celkem	+70,6	100,0	+74,1	100,0	+3,5	—
v tom:						
průmysl a stavebnictví	+31,2	44,2	+36,0	48,6	+4,8	+4,4
zemědělství vč. JZD	+18,1	25,6	+18,0	24,3	—0,1	—1,3
vnitřní obchod vč. SSD	+14,2	20,1	+10,2	13,8	—4,0	—6,3
ostatní	+ 7,1	10,1	+ 9,9	13,3	+2,8	+3,2

Key:

0. National economy total of which
   industry and construction
   agriculture incl. Unified Agriculture Cooperative
   domestic trade incl. Union of Consumer Cooperatives
   other
1. Sixth Five-Year Plan
2. expected actual
3. difference
4. in billion Kcs
5. in percent

The main cause of the unfavorable development of the inventory structure are the increasing deficiencies in supplier-consumer relations under the conditions of the increased share of cooperation in the total volume of production.

Development of the desired assortment and quality in production inventories is adversely affected by rising import prices which are reducing the physical volume of imports and, the shortage of foreign currency funds affect the decline of some types of production inventories below a tolerable level in a number of enterprises. In the years 1976 to 1978 import prices rose by 17.4 percent, which for these 3 years represents more than Kcs 60 billion physical imports at 1975 prices. Of this, about Kcs 30 billions fall to the share of imports for production use in industry and construction. The relative decrease of the physical volume of imports in the stated years, with limited possibilities of generation and utilization of foreign currency resources, was projected into the decline of the inventory status of imported raw materials, supplies and products in the industrial enterprises; the decline can be calculated at approximately Kcs 2.5 billions as compared to 1975.

Inventories of the enterprises of the agricultural complex will reach roughly the level assumed by the Sixth Five-Year Plan; to a substantial extent, however, the rising prices, especially of imported agricultural raw materials, affect these inventories. Poor harvests in 1976 and 1979 represent in the grain production alone a loss of 3.6 billion tons of planned production. Lower supplies of whole nutrition feed and the need to substitute bulk feed instead must result in a lower animal production.

The structure of inventories of industrial goods in domestic trade in particular is constantly unsatisfactory. During the Sixth Five-Year Plan we succeeded in lowering the volume of above-norm inventories in 1975 from Kcs 4.6 billions in 26 programmed items to Kcs 1 billion in 14 programmed items by the end of 1978. At the same time, however, the volume of below-norm inventories increased from Kcs 4.8 billions in 43 programmed items in 1975 to Kcs 8.2 billions in 56 items by 1978. Involved are mostly continuously scarce commodities which has a particularly adverse impact on meeting consumer demands. At the present time conditions do not exist for a quick improvement of the inventory structure of industrial goods. Problems of raw materials and production capacity, high export commitments and frequent lack of clarity and changes of production programs contrary to the market needs lead to a lag in the flow of deliveries to the market funds. The restriction of imports for the domestic market aggravates the situation further. The share of imports in the total retail trade turnover declined from 10.9 percent in 1975 to 8.7 percent in 1978. In 1978 alone this decline represented a market volume fund decrease of Kcs 2.9 billions.

The total development of inventories in the years of the Sixth Five-Year Plan has shown that the slowdown of the growth rates and the improved level of their utilization expressed in the accelerated turnover cannot be overestimated.

One must take into consideration that the development of inventories, especially in the years 1977 and 1978, was influenced to a great extent by the rapid rise of the foreign prices which affected the imports, i.e., the physical volume of the imported supplies was reduced, while the price rise could not be fully offset by exports. Consequently, while the rate of growth of inventories did slow down in some fields, this happened at the expense of deterioration of their structure. Underplanned inventories of some types of supplies, especially raw materials, materials and even semi-finished products had an adverse effect on the production growth rate and its final structural use.

Structural problems of inventories were clearly reflected in 1979 and were multiplied by difficulties related to the unusual climatic conditions at the beginning of the year. The endeavors of a number of enterprises to counterbalance the deficit in production tasks were mainly directed at the quantitative indicators without regard to the planned structure of production. These shortcomings aggrevated the difficulties in the buyer-supplier relations and a rapid rise of inventories affected both the producers (marketing difficulties) and consumers (impossible complementation delaying deliveries from suppliers, etc.) in most industrial fields.

The present development of inventories has shown that a number of measures adopted during the Sixth Five-Year Plan aimed at improving the development of inventories in the national economy has had so far only a conditional effectiveness. This is so on one hand because long-term systemic measures character are implemented only gradually and their effectiveness could not yet manifest itself fully, and on the other hand because some measures were not implemented with adequate emphasis and expolitation of all possibilities (for example, steps involving material interests, in the field of planning and management of inventories, etc.).

Some unfavorable trends in the development of inventories, especially in industry and construction, which were clearly manifested in 1979, signal the danger that the poorer inventory developments will continue even in the last year of the Sixth Five-Year Plan. The bank workers are thus faced with inordinately demanding tasks in the field of inventories for 1980. One must be aware, however, that success may be attained only if we approach the problems of inventory development and utilization as a complex, i.e., in relation to all problems and shortcomings of the managment of enterprises. Only increased efforts to insure, for example, the planned time schedules and especially the structure of production and distribution, to increase effectiveness of production and its quality, to achieve fuel and energy conservation, and especially conservation of imported raw materials and commodities, and increased care for maximum utilization of production equipment, actions aimed at maintaining the planned structure and terms of investment actions, etc., can create real conditions also for a lasting elevation of the level of utilization of inventories.

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TOWARD SELF-SUFFICIENCY IN PRODUCTION OF FODDER PROTEINS

Prague SVET HOSPODARSTVI in Slovak 11 Apr 80 p 1

[Article by Daniel Kalisky: "An Important Factor in Animal Production: A Series of Measures to Provide Fodder Proteins From Our Own Sources"]

> [Text] The intensive development of large-scale animal production requires that farm animals be provided with biologically complete nourishment. In addition to fully providing energy components and other effective substances the feed rations must also cover the need for nitrogenous substances. Only a balanced feed can help achieve good healthy animals and result in their full productive capability.

A limiting factor in the nourishment of animals, especially monogastric ones, is proteins, of which we have a serious deficiency and have to import them from abroad. Of sources of oil cakes, which are available throughout the year, 84.5 percent come from abroad, as does 40.5 percent of animal meal. Just for the SSR we pay over Kcs 990 million, freight prepaid, for these two components of feed mixes.

Our highest party and government bodies have often dealt with the problems of how to obtain a sufficient supply of proteins for our expanded animal production. On the basis of their resolutions a number of measures have been adopted to provide fodder proteins from our own resources. With this in mind the 13th and 14th plenary sessions of the CPCZ and CPSL Central Committees are also orienting us toward a more definitive resolution of this problem and the utilization of our own raw materials base and potential possibilities for the production of fodder proteins.

In fulfilling this so-called protein program the following results were achieved by the end of last year:

--In utilizing milk and whey for feed--In the years 1976 to 1980 the capacity for milk drying was to increase to 250 million liters in the SSR and additional capacities were to be prepared for the Seventh Five-Year Plan to fully provide for the drying of separated milk for feed purposes.

During this period five milk drying facilities were built in Levice, Krupina, Kosice, Spisska Nova Ves and Sered with a capacity of 301 million liters of milk. The goal was met 120.4 percent. The production of dried milk increased from 20,400 tons in 1975 to 27,600 tons in 1979. During the Seventh Five-Year Plan additional capacities for 252 million liters of milk annually are to be completed, specifically in Stropkova and Liptovsky Mikulas and the drying facility in Calova is to be remodeled.

The reason for the low production of dried whey is primarily because of insufficient drying capacities, especially in the summer months. This also entails a high expenditure of energy.

--In utilizing dried blood of slaughtered animals--The processed blood of slaughtered animals is a very valuable source of animal protein. The supplies of processed blood of slaughtered animals increased between 1976 and 1979 from 11.6 million liters to 15.7 million liters. Of this amount 85.2 percent is dried for feed purposes and 0.81 percent is processed in the food industry. Because of a shortage of drying capacity, part of it is processed into blood meal and the remainder is treated in processing plants for byproducts suitable for feed purposes.

As a part of the so-called protein program two drying facilities for blood were supposed to be built by 1980 and a third one was to be prepared for the Seventh Five-Year Plan. Every kraj would thus have a new drying facility. Although a great deal of effort was expended to carry out these tasks the building locations could not be determined. Only recently did they manage to get approval for building a drying facility in Drienova in the Presov okres which is supposed to be started in 1980 and completed in 1983. Additional drying facilities will be built in the Seventh Five-Year Plan.

--In producing bonemeal--The raw material for this product is obtained from wastes of animal origin in the food-processing industry and from the bodies of dead animals. In the last 3 years the production of bonemeal increased from 15,400 tons to 17,300 tons, or 12.3 percent. In 1980 19,200 tons of bone and blood meal are to be produced.

One of the main reasons why we are lagging in processing capacities for the production of bonemeal is that the CSSR does not produce technological complexes. The Seventh Five-Year Plan also calls for the construction of two sanitation institutes in Moravany and in Jatova and the capacity of existing ones is to be increased by remodeling. This refers, for example, to the fats industry in Nitra, the processing link for poultry by-products in Drienova, etc.

--In the utilization of silage--In Slovakia 50,000 to 60,000 tons of silage is used annually. Since the beginning of the protein program the production of silage has been at an even level (9,000 to 10,400 tons). In the coming years its production will be reduced by 2,400 tons because of the remodeling of the pulp and paper mill in Ruzomberok where they are changing from sulphite to sulphate technology in processing wood.

As a part of the so-called protein program in Slovakia two technical-economic studies were made. The first dealt with the production of yeast on the basis of N-alcane by factories with an annual capacity of 60,000 to 80,000 tons which would be built near petrochemical plants. The other concerns the processing of straw and wood waste into fodder proteins, with an annual capacity of 40,000 to 50,000 tons. Achieving these objectives is extremely difficult, especially with respect to investment and there are also problems with sources of the raw materials, especially straw.

For the production of silage it is therefore necessary to seriously consider the sources of raw materials which the wood-processing industry provides. The scientific-technical base should also focus more along these lines.

--In the production of leguminous fodder--The production of leguminous fodder has been given considerable attention but not enough effort has been expended to fulfill this task. The leguminous fodder crop has increased from 31,800 tons to 44,800 tons in the years 1975 to 1979. However, the planned yield was not achieved in a single year and varied between 55.8 to 73.4 percent. It was affected to a considerable extent by unsuitable weather conditions. Part of the sown area was picked green and a low per-hectare yield was obtained from the rest. The unsatisfactory results are also due to the fact that there is inadequate equipment for harvesting, insufficient herbicides as well as places for storage which is itself an extremely sensitive and urgent problem.

The Seventh Five-Year Plan calls for further expansion of legume planting. The crop will increase 27.7 percent. A total crop of 90,000 tons is expected in 1985 which is 50 percent more than in 1979.

--In the production of industrial L-lysine--The production of crystalline L-lysine increased by 614 tons compared with 1975, especially in Biotika Slovenska Lupca, on a base of refined sugar, molasses, peanut-oil cakes, soybean oil, corn products, etc. At present the plant for producing industrial L-lysine is being remodeled and is to be completed in 1981. The total annual production will be 3,500 to 4,000 tons of industrial L-lysine which will cover 45 to 50 percent of the total CSSR requirement. Even so, for the Sixth Five-Year Plan agricultural enterprises will not obtain 2,500 to 3,000 tons of L-lysine (annually about 500 tons). This drop represents a higher consumption of grains in the amount of 40,000 to 50,000 tons annually. In the Seventh Five-Year Plan the production of L-lysine will remain at a level of 3,500 to 4,000 tons since no additional production capacity is to be completed.

--In the processing of by-products for feed--An important source of feed is various leftovers from the food-processing industry, especially from plant kitchens, dining rooms, restaurants, etc. These leftovers are processed into feed pastes in five factories. They produce 18,800 tons of these pastes annually. The largest processing plant for this type of by-product is in Rovinka near Bratislava.

The building of these capacities has been lagging up to now. In the Seventh Five-Year Plan 23 of them will be built in Slovakia. There will be 3 types of plants in which 100.000 tons of by-products suitable for feed purposes are to be processed annually.

So we can state that in spite of certain problems we have made much greater progress even this year in carrying out the protein program and in the Seventh Five-Year Plan efforts will be increased toward its fulfillment as was prescribed by the 13th session of the CPCZ and CPSL Central Committees.

8491
CSO: 2400

CZECHOSLOVAKIA

SCIENTIFIC DEVELOPMENT IN AGRICULTURE, FOOD INDUSTRY EMPHASIZED

Prague NAS CHOV in Czech No 4, Apr 80 pp 133, 134, 139

[Article by Doc Eng Alois Slaby, CSc, of the Federal Ministry of Agriculture and Food, Prague: "Scientific and Technological Development Tasks in the Agriculture and Food Branch in Accordance with the 13th and 14th Sessions of the CPCZ Central Committee"]

[Text] The May 1974 plenary session of the CPCZ Central Committee on scientific and technological development assigned special tasks in this sector to the agriculture and food-industry branch with respect to its continued intensification and increased efficiency. The October 1974 plenary session of the CPCZ Central Committee devoted to the problems involved in the further development of agriculture and the food industry defined these tasks quite clearly and marked out the paths to developing large-scale agricultural production and modernizing the food-processing industry to provide for the increasing needs of the entire society, especially in regard to the living standard and the rational sustenance of the population.

Today if we critically assess the degree to which the tasks set by the above-mentioned party documents have been carried out we can be sure on the one hand applaud the indisputably positive results of scientific-technological development in the reproduction process in agriculture and the food industry as well as the significant stimulation of its research and development base. On the other hand, however, we must state objectively that it has as yet not proved possible to take advantage of all resources, potentials and reserves to the necessary extent and as made possible by the level of knowledge achieved at home and abroad in science and technology, nor has it yet proved possible to make sufficiently productive and rapid the research cycle--development--production--utilization. Many reserves also remain in our research and development base, in the entire pre-production stage and even in achieving higher and more efficient forms of both inter-industry and international cooperation.

The necessity of overcoming these shortcomings in using resources for reproduction and intensification in the agriculture and the food industry branch of the economy, especially in view of several potential limiting factors (energy, the environment, the availability of raw materials on world markets, etc.) is beyond doubt. The 13th plenary session of the CPCZ Central Committee held in March 1979 on the further development of agriculture also quite clearly outlined tasks for the entire broad area of the development of science and technology that in the next stage will determine the further intensive development of the entire agro-complex. It also stimulated the avenues to be followed in reaching the desired results and assigned the responsibility of the different partners within the branch and outside it in ensuring this demanding process. The 14th session of the CPCZ Central Committee in December 1979 emphasized all these tasks even further.

The extent of the tasks and the significant degree of responsibility has been stipulated for the research and development base in the agriculture and food-industry branch. Its share in guaranteeing the comprehensive tasks of scientific and technological development is being continually increased and extended. The reproduction process in the agriculture and food-industry branch, that is, is continually accelerating; in these branches too the innovation cycle is being significantly shortened. The order of the day for the scientific front is to provide creative and interdisciplinary approaches and closer ties between science and production (between research and development and production practices). Science is taking on an increasingly international aspect, and there is a vital need for rational and effective international scientific and technological cooperation. It would be possible to present a number of other factors involved in scientific-technological development that directly or indirectly influence the reproduction, intensification and innovation processes in agriculture and the food industry, (for example the educational system, the discoverer, inventor, improver and rationalizer movements, etc.) and therefore, from the standpoint of efficiency concentrated attention must be devoted to them.

The present time is the climax of an important stage in the preparations for the Seventh Five-Year Plan in agriculture and the food industry in the scientific and technological development sector, too. The research and development base in the branch also is participating intensively in this work.

Special care is being devoted to formulating the draft for the Unified Plan of Scientific and Technological Development for the Seventh Five-Year Plan, chiefly because in the sector of scientific and technological development the plan is the fundamental tool of management. The methodological approach taken by the department in formulating the draft Unified Plan for the Seventh Five-Year Plan shows certain differences with respect to past intermediate-period plans. Most importantly, a concerted attempt is made to achieve a systemic approach to formulating the draft, to achieve integrated ties among all the components of scientific-technological development and to allow for all these ties in the plan, and further to focus the material aspects of the Unified Plan on the key developmental priorities of the branch of agriculture and the food industry unambiguously stipulated by the 13th plenary session of the CPCZ Central Committee.

Within the framework of the systemic approach to formulating the draft Unified Plan for Scientific and Technological Development for the Seventh Five-Year Plan the entire research and development base cooperated in carrying out a number of preliminary measures designed primarily to objectivize fundamental research tasks and planned material and non-material approaches to carrying these out. I shall mention these at least briefly, since they demonstrate the rationality and comprehensive nature of the approach taken.

1. The framework was identified that will include, on the basis of party and government resolutions, projections, and a number of developmental concepts in agriculture and the food industry, the tasks and targets of science and technology as a tactically and strategically important factor in reproduction, innovation, and intensification;

2. Requests for research solutions from several dozen mid-level management organizations (KZS [expansion unknown], OZS [expansion unknown], VHJ [economic production units]) and leading enterprises of production practice, as well as special units of the ministries of agriculture and the food industry were compiled, evaluated and acted on;

3. Within the limits of the information available, development objectives were compared with the level and results of international science;

4. With the participation of the entire research and development base of the branch and the Czechoslovak Academy of Agriculture a promising counter-proposal was drawn up ahead of time for scientific and technological development and of so-called aggregated problem units, and the proposal for the basic orientation of research tasks for the Seventh Five-Year Plan was delivered. The separately elaborated aggregated problem units presented many objectivized views on the necessary orientation of research and the internal and external links in the Unified Plan of Scientific and Technological Development and they will be used for a long time yet;

5. An important section of the analytical works was the determination of the capacity potential of the research and development base in the agriculture and food-industry branch for solving basic research tasks on the basis of social priorities. The results of this investigation impel us to concentrate capacities to the maximum, to expand international scientific and technological cooperation capacities in order to ensure the priorities of scientific and technological development from the standpoint of the needs of the development of the branch.

In connection with formulating the draft unified plan the systematic participation science was secured for the preliminary work; the social order of applied research for basic research was drawn up in cooperation with the CSAZ [Chechoslovak Academy of Agriculture] and submitted to CSAV [Chechoslovak Academy of Sciences] and SAV [Slovak Academy of Sciences] just like a social order for research from the input branches in terms of the requirements for problem solutions and cooperation. Also worked out was a proposal concerning passive and active licenses for the Seventh Five-Year Plan, a proposal for sectoral and interdisciplinary integration and programs (formulated by the CSAV), etc.

Although the draft of the Unified Plan for Scientific and Technological Development for the Seventh Five-Year Plan has not yet been finalized, it is possible to summarize its contents. For the livestock production sector there are several intermediary research tasks of which the most important is the state research task. "A Rational System under the Conditions of the CSSR" coordinated by the VUZV [Research Institute for Animal Husbandry] in Prague--Uhrineves, which will be completed in 1984.

The newly proposed state and department tasks are intended to solve problems involved in the development of the genetics, improvement and hybridization of economically important animals, their feeding, the development of new sources of protein feeds, the health of animals under the conditions of large-scale animal husbandry organized on the industrial model, the development of the different branches of animal husbandry (hogs, sheep, the industrial system of egg and poultry production, etc.). Worthy of special attention is a newly proposed, comprehensively conceived state research task which will clearly be integrated into the established comprehensive program linking research, development and production entitled "The Management of Animal Husbandry." The coordination of this task has been entrusted to the VUZV [Research Institute for Animal Husbandy] in Nitra and the first results from it should be reflected in practice after 1981.

The year 1980, especially its first half, is a period in which the newly established research tasks for the Seventh Five-Year Plan must undergo even more significant qualitative changes. The purpose of these is to achieve a speedup in planned research, a gradual transmission of results, a more detailed comparison of these with information obtained in research worldwide and with practical needs, raising the parameters of the methods for putting these into practice, etc.

In addition to the efforts of the research and development base itself the demanding critical review system of technical-economic studies and a thorough methodological preparation for resolving the problems connected with providing for a higher level of coordination must be used toward this end.

We consider international scientific and technological cooperation, both multilateral and bilateral, chiefly with the socialist states and especially with the USSR, to be an integral component of the Unified Plan of Scientific and Technological Development. Past experience has shown that our research and development base has not yet succeeded to the extent necessary in going beyond its initial forms such as information exchanges and coordination. Moreover, some of our research and development institutes categorically assert that it is possible to successfully employ more advanced forms of this cooperation, to accelerate the solution of problems, to seek out suitable forms of specialization and cooperation, to create temporary international decision collectives, and so forth. I shall give two examples:

a temporary international collective of the CEMA coordinating center for animal husbandry based in Dummerstorf, GDR, achieved highly favorable results in transplanting egg cells in cattle. A similar temporary international collective working on problems involved in using synthetic nitrogenous materials in feeding dairy cattle, based at the VUZV in Nitra, achieved quite interesting results valued by all the partners in this higher form of cooperation, which is attested to by the joint publication of "Synthetic Nitrogenous Substances in Feeding Milk Cows," published in 1978 in the USSR, Bulgaria, the GDR, Poland, Hungary and the CSSR. (A. Sommer et al.: "Synthetic Nitrogenous Substances in Feeding Livestock," PRIRODA, Bratislava, 1978.)

It is the responsibility of the research and development base in the next period to seek out, in the spirit of the party directives, all avenues and possibilities for achieving more advanced forms of international cooperation in the field of science and technology, and to ensure that this cooperation yield the required fruit. Plans for multilateral and bilateral cooperation with socialist countries were formulated and concluded in December 1979. Now it is chiefly a matter of working out individual problems with the cooperating organizations and of a joint discovery of qualitively higher forms of cooperation emphasized at higher levels, including contractual cooperation.

Consistently linking the tasks of international scientific-technological cooperation to the state and department tasks of the Unified Plan of Scientific and Technological Development for the Seventh Five-Year Plan makes it possible to concentrate and multiply capacities in the research and development base, to intensify and better integrate internal and external coordination, and promises a substantial acceleration and increase in the efficiency of scientific and technological development in agriculture and the food industry.

In this context one cannot avoid mentioning at least briefly one important task of the research and development base that will speed up the transmission of research findings to agricultural and food-industry practice. This process and its efficiency fundamentally characterizes the strength of the tie between research and practice and is a measure of the integration of research, development, production and utilization. At the present time attempts are being made in the central sphere to intensify the management of putting the findings of science and technology into practice in a systemic conception and to consistently link research to the economic plans of the branch. However, the research and development itself must seek out means of transforming its findings into practical use, taking into account the needs of practice and its own capacities. Even in this demanding sector we can appreciate some results and take better advantage of experience to achieve a closer connection between science and production, research and practice.

The tasks of the research and development base of the agriculture and food-industry branch have been assigned and their contents, deadlines and criteria are reflected in the system of plans that will serve as the basis for managing scientific and technological development in the coming period. By carrying these out in a practical and creative manner Czechoslovak agricultural and food-industry research and development will indisputably contribute to the development of our branches as directed by party documents and as necessary for the rational feeding of our entire nation.

8805
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NEW AGRICULTURAL PLANT VARIETIES CITED

Bratislava EKONOMIKA POLNOHOSPODARSTVA in Slovak and Czech No 4, Apr 80 pp 189-190

[Interview with Eng Josef Veselsky, general manager of VHJ Oseva, by V.A.B.; date and place not given]

> [Text] The 13th CPCZ Central Committee Plenum emphasized among other things the responsibility of the scientific and technical base for solving some vital problems standing in the way of continued effective development of agriculture and the foodstuffs industry. This is in the VHJ Oseva's sector mainly a question of the acceleration of improvement programs for developing highly productive varieties suitable for mechanized production, not only of principal crops such as cereals and sugar beet but also clovers and other crops important to our agriculture. We have put some questions to Eng Josef Veselsky, general manager of the VHJ Oseva.

[Question] To begin with, we are interested in the results which you achieved last year and since the establishment of your new organization which was entrusted with important tasks by the CPCZ Central Committee Plenum in October 1975.

[Answer] For a start, it needs to be said that the organizational changes instituted following that plenum were and still are highly significant and of great importance. The work areas of individual organizations were delineated, duplication of work by institutions was eliminated, centralized management of science and research was strengthened and the crop options of individual specialized VHJ's were specified. It is understandable that the rapid implementation of the comprehensive restructuring of our research and seed improvement base had to cope with problems arising from the technical and organizational changes, transfers of personnel, changes of economic systems and accelerated establishment of new ties and relationships.

[Question] Could you characterize briefly the activity and results achieved in individual crop sectors in your jurisdiction [geece]?

[Answer] In the last five-year plan 40 new varieties of principal agricultural crops were developed as a result of our strain improvement work for use in agricultural production. Many of these new strains changed the composition of our assortment, helped meet our rising agricultural requirements fully and raised crop production efficiency. In the last 3 years of the existence of our new organization the newly developed varieties included a total of 29 principal crop strains with 9 cereals, 7 legumes, 5 hybrid corn varieties, 1 winter rape, 2 clovers and grass strains, 1 potato, sugar beet and feed beet strain, 4 grapevine strains and strains of vegetables, aromatic, medicinal and ornamental plants.

This is the fourth year of our activity. Four years of exacting crop improvement work and development of new strains has already had its organizational, methodological and professional impact.

[Question] Could you tell our readers something about the quality of the strains of some of the major crops over which Oseva has jurisdiction [geece]?

[Answer] We are fully aware that our improvement work is open to criticism by our farmers who, being experts in the field, are able to compare the quality of our strains with strains grown elsewhere and with competing imported strains. Therefore, we are trying to develop new productive varieties adapted to our natural and climatic conditions. Dependence on imported seedstock from capitalist states is always very expensive, unlike the delivery of Soviet wheat strains where the motive is selfless fraternal assistance.

And now about individual crops. With respect to cereals we have until recently been mostly relying on Soviet wheat strains which by their characteristics affected the extent of cereal cultures in our country. In recent years domestic strains derived from Soviet varieties are beginning to take hold in our assortment. Our varieties are bred to give good yields in individual growing areas. They are the varieties Slavia, Hela, Juna, Mirela and of the new ones a very promising strain HE 270/115 which together will add up to a full 33 percent of the winter wheat seedstock assortment. The high quality of some experimental strains currently undergoing state variety testing is also promising.

With respect to cereals it can be said that our improvement work was highly successful in the case of spring wheat. Our strains Jara and Rena have markedly improved the assortment of strains of this cereal. Highly promising are also new improved strains from Stupice and Hrubcice which are currently undergoing state variety testing. We are unhappy with the situation in winter wheat which we have been forced to import for several years now. Even though the new strain BR-1 from the Branisovice improvement station, which has already been tested, has a chance of being approved we still owe our agriculture a modern productive strain. Here our Cereal Research and Improvement Institute at Kromeriz faces a difficult task.

Spring barley improvement measures up to the traditional high standard. Since 1976 the assortment of cultivated strains has broadened and changed completely with the sole exception of the Favorit strain which has been in production for more than 5 years. The quality of this cereal has improved and also the new materials currently being tested are promising. A certain improvement has been achieved in the case of oats where the production of new Hermes and Saturn strains is spreading rapidly.

I would like to use this occasion to present our view on corn. Our corn strains are being underrated in some places and some workers see the only solution in foreign imports. It is our opinion that our corn improvement work has yielded some very good results. In recent years several new types of grain and silage corn were added to our assortment which exhibit advanced characteristics demonstrating a high improvement work standard in this sector. Last year alone four new hybrids from the Cejc improvement station were certified including the very early maturing silage corn hybrid CE 193, the early maturing grain corn hybrid CE 200, the medium-early maturing grain corn hybrids CE 268 and CE 330. There is little doubt that strain composition can be improved further.

With respect to legumes our improvement stations are developing new strains reaching the European standard, with the intermediary types exceeding it. Our Smaragd strain certified in 1978 is the first strain whose characteristics met the requirements of the theme task set by the Ministry of Agriculture and Foodstuffs for 1985. Another strain, Dukat, almost reached the same standard. We are still waiting for a new bean strain to improve our current assortment. In the case of winter rape our breeders caught up too late with the world trend of developing strains which would contain no or little erucic acid and therefore have no strains which would meet these requirements. Experimental strains currently undergoing state variety tests offer a certain promise.

Our assortment still lacks a productive single-seed sugar beet variety. While the Domona strain certified last year represents an improvement over our older single-seed varieties we still cannot match the quality of the best world strains. New modern strains are being developed by international cooperation. Two very productive hybrids developed jointly with the GDR have already been entered in state variety tests.

[Question] What you have told our readers indicates that you have recently been rather successful in your cereal improvement work. Are you encountering any problems, and what are they?

[Answer] To think that we have no problems would be a mistake. One of our problems, for example, is developing new strains of early potatoes which we still have to import. Even though the situation with other potato types is more favorable we have no cause for celebration because over the past 5 years only in 1978 was there a single new strain--Alma--certified. Therefore, we need to intensify our research and improvement work on this crop even though some foreign interests want to cultivate some of our new potato strains under license.

[Question] What is the situation in the feed sector, with clover, alfalfa and grasses?

[Answer] In view of the rising importance of feed crops we face the challenge of developing new varieties in this sector. We have achieved some results by developing, for example, the new tetraploid clovers Odra and Tarpan or the new Radegast clover strain and the Bobrava alfalfa strain and some grass types, but we still have far to go. We need to intensify our research and improvement work in developing new varieties not only of all classical crops but of all feed cultures generally.

As a matter of interest, grapevine improvement also comes under Oseva's jurisdiction [gesce]. In spite of difficulties which exist in this sector four new clones of grapevine shoots were certified last year.

[Question] What is your concluding message to our readers?

[Answer] I wish to assure your readers and the broad agricultural public that we are fully aware of what agricultural production experts expect from us and we promise to supply new productive crop varieties which constitute the principal tool for intensifying agricultural production. To meet these exacting requirements our research and improvement stations are working to fulfill 17 thematic tasks and 46 other tasks aimed at satisfying all the different demands of the institutions and organizations which are our customers. I am convinced that we have the potential and ability to fulfill the tasks which the October plenary session of the CPCZ Central Committee and the 13th CPCZ Central Committee Plenum have assigned us.

8664
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SSR CORN SELF-SUFFICIENCY PROSPECTS

Bratislava ROLNICKE NOVINY in Slovak 16 Apr 80 p 6

[Article by Engineer Robert Sevcovic, ScC, director of the Corn Research Institute in Trnava: "Path Toward Self-Sufficiency--The Most Successful Year Ever in Corn Cultivation"]

[Text] In 1979, when we commemorated the 30th anniversary of the building of our socialist agriculture, a record yield of grain corn, 843,400 tons, was harvested in the Slovak Socialist Republic. Not only was it the biggest harvest ever, but also in the past years of the current Sixth Five-Year Plan the directives of the 15th CPCZ Congress have been fulfilled by annual production of at least 800,000 tons of grain corn.

In the socialist sector the average per hectare yield achieved in the SSR was 5.04 tons, and in the CSR 4.53 tons of grain corn, including corn for seed. Analysis shows the most productive kraj was Western Slovakia where a total of 729,400 tons of grain with the average yield of 5.33 t/h was produced on an area of 136,900 hectares. The district of Trnava may be identified as the most successful district in corn cultivation, with the average per hectare yield achieved in the socialist sector equal to 6 tons, including seed corn from the area of 14,700 hectares. It is noteworthy that the total production of 85,500 tons in that okres in 1979 was twice as high as its total production in 1976. The best yield of grain corn, however, was harvested in the okres of Nove Zamky, namely, 113,000 tons of corn. Outstanding results were achieved in the unified agricultural cooperative Pokrok in Ostrov near Piestany, whose average yield of grain corn harvested on an area of 150 hectares was 10.19 t/h, in the unified agricultural cooperative CSSP [Czechoslovak-Soviet Friendship] in Trhoviste in the East Slovakia kraj, where the average per hectare yield on an area of 350 hectares was 7.02 tons, and in the Central Slovakia kraj in the unified agricultural cooperative in Terany, where the average yield was 5.2 t/h.

The 13th Meeting of the CPCZ Central Committee and the Program for Corn Cultivation

The average per hectare yield of grain corn in 1976 and 1978 was 0.62 to 1.13 t/h below the plan, and only in 1977 did the average yield surpass the plan by 0.21 t/h. A more serious problem stemmed from the fact that during those years we turned over a total area of 109,100 hectares cultivated for grain corn to other purposes.

Since corn plays a significant role in fulfilling programs for grain and fodder cultivation, the 13th meeting of the CPCZ Central Committee and the meeting of the Central Committee of the Communist Party of Slovakia in March 1979 dealt with the above-mentioned problem. From the decisions of those meetings it followed that we must focus on the cultivation of the very early, early, and medium-early hybrids of grain corn, and stabilize high yields of silage corn with the required parameters of silage quality.

Agricultural enterprises adapted these decisions to their own conditions and implemented them in their programs of corn cultivation. As a result of active political, organizational and regulating activity, corn helped reduce the deficit in the production of grain and bulk fodders. The quality of silage corn, which we analyzed in certain selected agricultural enterprises, depended on the structure of the hybrids and on variety agrotechnology, including protection against weeds. Most of the analyzed silages were of excellent or good quality, with a high contents of grain, namely, 1.7 to 2.2 kg/10 kg of silage. Many enterprises took this fact into consideration and reduced their standard consumption of grain mixes in individual categories of cattle-raising.

In the past years we harvested corn with 35 to 40 percent moisture content of the grain. The share of the very early, early, and medium-early hybrids in total corn crops for grain was raised to 73 percent, which significantly affected the savings of energy and fuels while drying the grain. We assume that in 1979 the average moisture content of the grain during the harvest was reduced by 5 percent, which cut the drying costs by Kcs 5.50 per ton; this means that in the SSR the savings of costs of fuels and energy amounted to Kcs 4.6 million, assuming that the whole harvest had to be dried.

Weather Conditions and Development of the Crops

Success and failure in corn cultivation are frequently assessed in the most general terms. Comparisons are made solely on the basis of weather conditions. This factor in the development of the crops must be assessed objectively, because even in the future it will be an important factor in the amount of production from a unit area, and on the other hand, it will help us determine the effect of subjective factors.

As concerns the weather, the year 1979 may be characterized as average, and in some locations even favorable for corn cultivation.

A more specific analysis, however, demonstrates considerable variations between krajs and between okreses in individual krajs in the SSR. The level of winter soil moisture was below normal in the West Slovakia kraj, and slightly above normal in the Central Slovakia and East Slovakia krajs. As compared with long-term averages, total precipitation during the growing season--April through September--was 112 percent in the West Slovakia kraj. In the okreses of Komarno, Nove Zamky, Galanta, Dunajska Streda, and particularly Levice, Velky Krtis, and Rimavska Sobota, a drop in total precipitation was noted particularly during the formation of the generative organs. In the Central Slovakia kraj total precipitation during the growing season was merely 72 percent of the long-term average, and in the East Slovakia kraj it was nearly normal. Average data expressing 50 percent of total precipitation for the 6 months of winter in 1978-1979 (October through March) and the sum of precipitation during the vegetative stage amounted to 443 mm (1 percent above normal) in the West Slovakia kraj, 413 mm (19 percent below normal) in the Central Slovakia kraj, and 471 mm (3 percent below normal) in the East Slovakia kraj. With proper and efficient use of water, and above all, with proper agrotechnology during the formative stage of the cultivation, that amount of precipitation could yield an average harvest of grain corn equal to 5.9 t/h in the West Slovakia kraj, 5.5 t/h in the Central Slovakia kraj, and up to 6.3 t/h in the East Slovakia kraj.

Naturally, these planned yields are theoretical. In some cases the actual yield per hectare was lower, because the distribution of precipitation during the growing season was not uniform. The month of April was unusually wet in every kraj, as was also the month of June in the West Slovakia kraj. The share of the saturated and inundated areas in the East Slovakia kraj was high, which rendered the spring tilling of the soil and the corn planting process very difficult. The month of May was abnormally dry in every kraj. Highly intensive precipitation during the month of June, which was more than 100 percent above average in some areas, affected the generally good per hectare yield of grain corn in certain okreses of the West Slovakia kraj; in July the precipitation was almost normal, on the average 84 percent of the long-range average. In the Central Slovakia kraj the precipitation which was below normal during the formation of the generative organs of the corn crops amounted on the average to a mere 40 percent of the long-term average. The drought affected especially the okreses of Velky Krtis, Rimavska Sobota, and Lucenec. Precipitation during the months of June and July was 5 to 15 percent below the long-range average in the East Slovakia kraj.

Temperatures were nearly the same in all krajs. The temperature in April and June was below normal, and in July and May above normal, and almost normal in the remaining months. Thus, it did not affect the formative process of the corn crops. On the other hand, the first 10 days in May were very cold. That period was compensated for by rapid growth and by an increase in above-normal values of the assimilation area. This was negatively reflected in the next period, particularly by certain Hungarian hybrids, when gale-strength winds passed through the okreses of Galanta, Dunajska Streda, Nitra, and in part through Nove Zamky, which unfavorably affected the size of the per hectare yield. Because a large part of the corn crop was crushed, harvesting losses increased, and the bulk of the grain was reduced.

Consequences of the Low Standard of Variety Agrotechnology

In 1979 major differences were noted in per hectare yields of grain corn among individual krajs and okreses. Based on the average per hectare yields of corn in the West Slovakia kraj, the yields in the East Slovakia kraj were on the average 1.23 t lower, and in the Central Slovakia kraj 1.88 t lower. This drop in the yield may be explained in part according to the above evaluation of weather conditions in the Central Slovakia kraj.

In cooperation with the District Labor Center, kraj agricultural administrations analyzed not only the objective, but primarily the subjective factors. On the one hand, an insufficient material base, such as machinery, chemical weed-killers, and biological materials, became evident. On the other hand, the evaluation stressed that in many agricultural enterprises machinery had not been properly and promptly prepared and stored, and made available in the required quality for corn cultivation. Neither can one express any satisfaction with the application of weed-killers. In many instances we have noted areas in the crops left unsprayed and overgrown with grassy annual weeds. This reduced the yields by 15 to 30 percent, and furthermore, this factor decisively affected the rotation of corn crops for silage purposes.

The analysis of per hectare yields indicates that many agricultural enterprises achieved average per hectare yields of grain at the level of 1 to 3 tons.

The causes of low yields are now being analyzed in greater detail by kraj and okres aktivs, where the scientific research base presents the latest information on problems of corn cultivation, harvest, and post-harvest treatment, and the agronomists share their experience.

More Rational Methods of Irrigation

Some of the causes of lower yields of corn stemmed from the structure of the biological material. In the East Slovakia kraj, for instance, the per hectare yields in the groups of very early and early hybrids differed by as much as 1.16 ton of grain per hectare. Particularly hybrids developed in Hungary and France produced excellent results. It was confirmed in 1979 too that the hybrids of the CE 190 and CE 250 types proved unsuitable for the yield of grain and for the planned per hectare yields.

In addition to the structure of hybrids, problems in variety agrotechnology continue in the organization of crops, namely, in the density and number of plants per hectare. Irregular spacing of the plants in the crops not only reduces the yield during the formation of the grain, but also increases the losses in the field, because the ears do not develop uniformly.

We have ample reserves in a more rational and efficient exploitation of irrigation systems, particularly in the West Slovakia kraj. The Agricultural Commission of the West Slovakia Kraj Committee of the Communist Party of Slovakia criticized this problem. Some problems are connected with sections of irrigation systems where most of the current types are unsuitable for the irrigation of corn crops, however, projects now planned by the Research Institute of Irrigation Management and by some agricultural enterprises deal with details of irrigation of corn crops at low investment costs. Manv agricultural enterprises have realized that systematically used irrigation can not only maintain the moisture of the soil at a desirable level, but also improve the microclimate of the crops. This has a significant effect on the fertilization of the grain, which increases its bulk and stabilizes high yields of the corn.

The "Sixties" Serve As an Example

Agricultural enterprises that are intensively applying the achievements of science and technology and are involved in the movement of the Sixties are sharing most of all in the successful trend in our corn production. In 1979, 52 agricultural enterprises in the West Slovakia kraj alone surpassed the average per hectare yield of grain corn of over 6 tons on an area of 30,600 hectares. The results of corn cultivation in those enterprises confirmed the importance of specialization and concentration. For example, the Agrokomplex in Calovo achieved an average yield of 7.16 t/h on an area of 1,530 hectares, the unified agricultural cooperative in Kollarovo 7.35 t on an area of 1,930 hectares, and the unified agricultural cooperative in Voderady 7.57 t of grain corn per hectare on an area of 1,008 hectares. Other agricultural enterprises with grain corn areas over 1,000 hectares, such as the State Farm in Gabcikovo, and the unified agricultural cooperatives in Trhove Myto, Majcichov, Sokolce, Horne Saliby, and in Okoc, achieved average yields over 6 tons per hectare.

Research--Development--Production

Systems of industrial cultivation of corn, implemented in the SSR in 1979 by the so-called realization starts in the Corn Research Institute in Trnava on an area of 1,250 hectares, proved that it is one of the progressive methods of further increasing and stabilizing high yields of corn. The average per hectare yield produced from irrigated areas in selected agricultural enterprises was 8.28 tons. This result is not coincidental. It has been further confirmed by the results from the preceding years, because the average per hectare yield in those enterprises had not fallen below 6.7 tons per hectare.

The standard of cultivation of grain corn also increased in those agricultural enterprises that are conducting experiments in pilot plant production with the latest hybrids developed in Czechoslovakia and abroad. In 1979 experiments in production were conducted in the unified agricultural cooperatives in Soporna, Tesedikovo, Sarovce, Zemne, Svodin, Nove Zamky, Modrany, Michal-na-Ostrove, Mliecno, Mierovo, Voderady, Sokolce, in the administration of state farms in Sladkovicovo, in the unified agricultural cooperatives in Dvory on the Zitava River, Moscova, in the Agrokomplex of

Palarikovo, in the state farm in Michalovce, in the unified agricultural cooperatives in Trebatice, Ostrov near Piestany, in the Regional Council of Cooperatives in Nova Ves on the Zitava River, in Bracovce, and in the Regional Agricultural Enterprises in Zemplinska Teplica.

Not only the application of the latest scientific and technical achievements, but also the application of the experience gained by the Transcarpathian growers in their cultivation of corn over long years confirmed in the okres of Michalovce in the East Slovakia kraj that high per hectare yields in the conditions of the East Slovakia lowlands may be stabilized with the aid of special agrotechnology. The unified agricultural cooperative in Trhoviste tested the Transcarpathian methods of corn cultivation on an area of 104 hectares and achieved an average per hectare yield of 9.02 tons. Similar noteworthy results have been achieved in southern Slovakia where some enterprises tested methods of industrial cultivation of corn developed in the Hungarian People's Republic.

It is desirable that the scientific-technological progress and the valuable experience with the cultivation of corn in the neighboring states be applied more efficiently than thus far in order to obtain high yields also in the last year of the Sixth Five-Year Plan.

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HIGHER AGRICULTURAL YIELD THROUGH IRRIGATION

Bratislava EKONOMIKA POLNOHOSPODARSTVA in Slovak and Czech No 4, Apr 80 pp 165-166

[Article by Eng Vendelin Peter, SSR Ministry of Agriculture and Nutrition: "The Effectiveness of Irrigation"]

[Text] The possibility of expanding the agricultural land area in our country is slim. The widespread building of factories, housing, highways and other facilities eats away from the available agricultural land and reduces its area. The greatest loss is to arable land of highest quality in the plains. The 0.55 hectare of arable land per inhabitant after World War II has now shrunk to a mere 0.32 hectare. Such mismanagement has to stop, agricultural land must be protected, its fertility maximized and the available land must be exploited to the full in accord with the resolutions passed by party and state organs and the updated law.

The situation in providing food for our population is also aggravated by the fact that the quality of the land does not lend itself to intensive exploitation. According to the results of a comprehensive soil evaluation study, one-third of Slovak agricultural land is of limited fertility and almost one-fifth of low fertility. The least fertile soil is in the Central and East Slovak krajs. To intensify crop production the implementation of irrigation programs prepared in Slovakia, in krajs and okreses must be accelerated.

The comprehensive unified review of overall Slovak water-supply and irrigation needs calls for draining 420,000 hectares of land, irrigating 800,000 hectares of agricultural land, improving 5,880 kilometers of streams and constructing reservoirs with a total capacity of 70 million cubic meters of water for irrigation. In addition, and specifically in connection with the construction of the water-supply improvement works, extensive soil improvement measures not requiring investments need to be implemented.

Much has already been accomplished in the area of soil improvement. Irrigation facilities were provided for more than 200,000 hectares of land, more than 318,000 hectares were drained, 3,320 km of streams were improved and small reservoirs with a capacity of over 32 million cubic meters were constructed.

An extraordinarily extensive program of irrigation and soil improvement works is expected to be implemented in the Seventh Five Year Plan. Irrigation systems are planned for 120,000 hectares (in the Sixth Five-Year Plan for 45,000 hectares), 90,000 hectares of land are to be drained (82,000), 680 kilometers of streams (285 km) improved and small water reservoirs with 10 million cubic meter capacity (9.7 million cubic meters) built. In addition, 200,000 hectares of arable land are to be improved as well as almost 100 [as published] hectares of meadows and pastureland, more than 50,000 hectares of infertile and devastated land etc.

This calls for a huge capital investment into our soil fund which the entire society will pay for. Hence the justified expectation that this investment will pay for itself by full utilization of all improvement facilities and the planned increase in harvest yields.

Naturally, the greatest benefits are expected to accrue from the irrigation works. Irrigation is considered to be one of the most effective improvement tools, not only by us but the world over. Available information reveals that in this century irrigation of arid and semiarid regions increased from 8 to 250 million hectares, which comprises 16 percent of all agricultural land. According to FAO forecasts, 300 million hectares will be under irrigation by the year 2000. Some specialists even claim that the potential is much greater [illegible], to 500 million hectares. But the actual extent of land irrigation will depend on the world and economic situation which will be determinant for the volume of investments into the construction of irrigation systems. The solution of the world hunger problem is expanding irrigation in areas with adequate water resources and in the arid and semiarid areas alluded to above.

In our country, irrigation is expanding faster than in the rest of the world and the technical quality of the facilities is improving, which helps our cooperative farmers attain high harvest yields per hectare even in years with unfavorable weather conditions and long-lasting droughts.

Many practical examples demonstrate that in our conditions irrigation is an effective factor which stabilizes harvest yields. Some of those evaluated by the Irrigation Research Institute will be mentioned here.

Alfalfa for hay--The JRD (unified agricultural cooperative) Medzicilizie in the Dunajska Streda okres attained a yield of 12 tons of hay per hectare on irrigated land as against 6.96 tons per hectare on unirrigated land, and the JRD Seporna in Galanta okres harvested 10.09 tons of hay per hectare from irrigated as against 4.63 tons from unirrigated land. During the growing season 4 to 5 mowings are possible on irrigated land.

Sugar beet--The JRD Trebatice in Trnava okres harvested 48.8 tons of sugar beet per hectare on irrigated land as against 32.6 tons per hectare without irrigation, and JRD Gbely in Senica okres harvested 45.6 tons of sugar beet on irrigated land compared with 27.2 tons harvested without irrigation.

Corn grain--JRD Okoc in Dunajska Streda okres harvested 7.2 tons of grain corn per hectare of irrigated land compared to 5.54 tons harvested without irrigation, and the JRD Trhove Myto from the same okres harvested 6.07 tons from irrigated but only 4.5 tons grain corn from non-irrigated land.

Wheat--The SM (state farm) Zeliezovce harvested 8.1 tons of wheat per hectare of irrigated land compared with 5.48 tons from unirrigated land, the JRD Senec in Bratislava okres harvested 6.6 tons of wheat per hectare on irrigated land compared with 4.55 tons on unirrigated land.

Extraordinarily high yields were harvested from fertilized and irrigated grass cultures grown on arable land. The Zlate Klasy JRD (Dunajska Streda okres), for example, harvested 13.8 tons of hay per hectare, the Michal JRD 14 tons per hectare, the SM Slovenske Pole in Galanta okres 13.8 tons per hectare and the JRD Tesedikovo from the same okres 12 tons of hay per hectare. Intensive cattle farming, especially the raising of cows, requires artificially grown grasslands used for agronomic, zootechnical and veterinary reasons alternately as pastureland and for haying.

In addition to the supply of water, the harvesting of high and stable yields from irrigated land also requires favorable conditions in other areas affecting the agronomic system including suitable biological material, intensive nutrition, soil protection and preparation, alternation of crops and other such measures. These measures must be suitably adapted to conditions under irrigation to form a comprehensive management system.

An unstable structure of crop and animal production which impacts directly on the use of irrigation constitutes a serious problem on irrigated land. Specialists point out quite correctly that in the corn growing region corn should be grown for grain reducing thereby the acreage of densely sown cereal cultures to improve the fulfillment of the overall cereal production plan. More alfalfa, early potatoes, sugar beet, intensively raised grass crops and especially intermediary crops in 20 to 25 percent proportion should be grown on irrigated land. Irrigated land should be used primarily for the production of bulk fodder and root crops to create favorable and stable conditions for the development of cattle raising which in our agriculture represents a vital sustaining sector. Intensive cultivation of bulk fodder crops permits raising cattle density gradually to 200 head of cattle for each 100 hectares of agricultural land. Irrigation is ideal for establishing dairy farming combined with raising vegetables, sugar beet and early potatoes which makes for intensive agricultural production. Here, in addition, increased manure production adds to soil fertility.

Our scientific technical base provides solutions for these and other complex questions through the studies and extensive experiments it conducts, and our foremost agricultural enterprises implement the scientific findings by widespread practical application.

Agricultural procedures in conditions of irrigation are based on proven methods established by the Irrigation Research Institute at Bratislava and are adapted to our conditions, the approved assortment of crop varieties, the available irrigation equipment and organization of labor. Researchers from this institute emphasize that optimal plant density per hectare of individual crops is a prime condition of the successful use of irrigation. They unanimously recommend at least a 30-percent increase in plant density on irrigated land over unirrigated cultures.

The key factor in growing sugar beet on irrigated land is the number of seedlings planted and the even growth of the culture. With intensive crop nutrition 100,000 to 120,000 plants per hectare are required. Optimal biological and economic conditions call for adequate precipitation in July and August to prevent soil humidity from dropping below 60 to 70 percent. Under these conditions we too can harvest 70 tons of sugar beet per hectare and approximately 100 tons of beet tops per hectare.

Intensive cultivation of corn under irrigation likewise requires increasing the number of plants per hectare by 20 to 40 percent over unirrigated cultures. At the same time, the supply of fertilizer must be appropriately increased and effective herbicides used where needed to control grass weeds. The sensitive period is between the bloom and wax-milk crop maturity when soil humidity must not be allowed to drop below 60 percent. Results achieved over many years demonstrate that in our conditions 10 tons of grain corn can be harvested from large cultures.

Our farmers do not provide sufficient irrigation for early potatoes even though research results found irrigation to be highly effective. In addition to increasing the harvest by up to 100 percent irrigation also shortens the growing season, which is very important because it allows for early marketing. In addition, early market deliveries of potatoes fetch price premiums. The optimum plant density per hectare is 70 to 80,000 plants.

In our country irrigation of bulk fodder cultures with simultaneous application of high fertilizer doses will increase harvest yields the most. The hay harvest can be increased by irrigation by up to 20 to 22 tons per hectare, resulting in even distribution of organic matter supply during the growing season which in turn is of great economic and organizational advantage because it uses drying facilities to full capacity and provides pasture for cattle.

The 13th CPCZ Central Committee Plenum resolution calls for increasing the proportion of intermediary crops for use as fodder by 10 to 12 percent of the arable land area. Under irrigation the proportion is, of course, higher, in fact it is double because the harvest yield is assured. But researchers recommend a bolder approach using all types of intermediary feed products. The estimate of 4 to 5 tons of dry matter as the harvest yield from one hectare is realistic. Intermediary products can supply 15 to 20 percent of overall bulk fodder requirements which allows for laying in adequate reserves and reducing the area of arable land which must be sown in fodder cultures. Under the conditions existing in this country, winter beet, (winter) wheat and barley stubble mixtures offer the greatest possibilities.

The possibility exists of using inexpensive seedstock for the purpose such as, for example, winter beet (Ackela, Perko), Sudan grass, sunflower, feed kale etc.

The advantages of irrigation are still not adequately understood in our country. Agricultural practice is being criticized for failing to charge adequate interest on money invested in irrigation facilities. By 1 January 1979, 204,000 hectares of land were under irrigation. Deducting from this total for depreciation, reconstruction, small irrigation systems and expenses of agricultural enterprises leaves 170,600 hectares as the basis for irrigation planning. The annual plan stipulated a basic area of 126,000 hectares, i.e. 73.8 percent. In 1979 this task was not fulfilled (91.3 percent). In the okreses Dunajska Streda, Bratislava-rural, Galanta, Levice and Nove Zamky the plan was fulfilled relatively best. The okreses Bratislava, Dunajska Streda, Komarno and Nove Zamky fared best with regard to quantity of water used per hectare. The other okreses lag behind. Of individual irrigation systems, the one at Zlate Klasy which irrigates 115.6 percent of the planned area and uses 135 percent of planned irrigation water yielding intensive irrigation, is the best. Also the SZS Sala achieved good results (110 and 108 percent respectively). The state farms Trebisov and Michalovce exhibit very poor irrigation results (less than 33 percent), Lucenec 58 percent at most and Kuty and Devinska Nova Ves 80 percent at most.

The reasons for the inadequate use of irrigation must be properly analyzed, the subjective causes identified and proper consequences drawn to improve the situation in 1980. The irrigation plan should not be lower than 80 percent of the basic irrigated areas. The Irrigation Research Institute, the SMS, the Agrostavs and agricultural enterprises owning irrigation systems must not miss the opportunity of training irrigation foremen, securing adequate labor resources including labor brigades and ensuring proper material and technical maintenance systems.

The exacting crop production tasks planned for the last year of the Sixth Five-Year Plan count on maximum utilization of irrigation and maximum yields. Irrigation cannot and must not be used only to make up for and repair damage done by poor agricultural management but as an autonomous factor for raising crop yield and ensuring their stability. These were the only reasons for which irrigation systems were and are being built.

8664
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HIGHER LIVESTOCK PRODUCTION URGED

Prague NAS CHOV in Czech No 3, 19 Mar 80 pp 94-96

[Article by Josef Krecek, head of the Federal Ministry of Agriculture and Nutrition Livestock Production Department: "Strengthening the Base for the Seventh Five-Year Plan by Implementing Resolutions of CPCZ Central Committee Session"]

[Text] The March 1979 CPCZ Central Committee session on the fulfillment of the 15th CPCZ Congress resolutions, and on further objectives in agriculture and the foodstuff industry stemming from an in-depth analysis of the results of the first 3 years of the Sixth Five-Year Plan, stated that the positive development established in livestock production during the Fifth Five-Year Plan has been continuing. Livestock production displayed a growth tendency throughout the whole evaluation period. A study carried out in September of last year by a team of experts from the CPCZ Central Committee showed that the great majority of agricultural enterprises, regions, districts and their services had formulated, on time, measures stemming from the resolutions of the March CPCZ Central Committee session and embarked on their implementation. There remains, however, the matter of seeing to it that the implementation is complete and effective. The efficiency measure will be the production level actually achieved in the final year of the Sixth Five-Year Plan and the prerequisites which have been created for the Seventh Five-Year Plan.

In spite of the favorable overall evolution of livestock production the 13th CPCZ Central Committee session called attention to the fact that its growth pattern has not been the same for all sectors. Cattle raising developed more slowly. This influences the production of beef first of all. Increases in the weight of cattle being fattened stagnated at the level of the previous five-year plan due to an insufficient quantity of bulk forage crops, their poor quality and utilization. At the same time slaughter weights also declined. The resulting shortfall in beef production had to be compensated for by the increased production of slaughter pigs which demand concentrated fodder.

THE CPCZ Central Committee Presidium report also stated that the planned numbers of dairy cows are not being met, a trend influenced also by a decline in herds kept by individuals and on farms worked by single farmers. The great differences in the performances of enterprises operating under comparable conditions, large losses in the processing, handling and storing of raw materials and finished products, and the low level of valuation of agricultural production were cited as the areas most in need of, and amenable to, improvement. The report noted in particular a continuing high number of losses due to death in livestock production.

Therefore, in the resolution of the 13th CPCZ Central Committee session on the fulfillment of the objectives of the final 2 years of the Sixth Five-Year Plan, and the coming period, it was declared critical to efficiently mobilize internal potential, battle against losses and for the high quality and efficient production of output, and at the same time to strengthen the material-technical basis. The struggle to guarantee an increase in foodstuff production must be waged above all through plant production, in which it will be necessary to achieve a significant increase in the output and quality of bulk forage crops, especially through the more intensive utilization of meadows and pastures, increasing the amount of perennial forage crops, and expanded sowing of intermediate crops, for all of which it is necessary to obtain sufficient seed. In addition it is necessary to reduce losses during their harvest, preservation and storage. It will be necessary to subordinate the structure and varietal makeup of forage crops to the most modern scientific discoveries concerning animal nutrition. Concurrently construction must be speeded up on storage spaces for silage and hay and on hay lofts for cold air drying. The quality harvesting, storage and appropriate technical treatment of straw must be arranged for. It will be necessary to devote the same amount of attention to the production of bulk forage crop as to that of grains, including material incentives.

In livestock production, the 13th CPCZ Central Committee session is orienting the efforts of zootechnologists, breeders, veterinarians and keepers above all to the development of cattle husbandry and an increase in their productiveness and, for slaughter animals, to raising slaughter weights. It considers the main tasks to be improving the organization of livestock raising by applying the newest scientific findings concerning reproduction to increase the birth rate and lower mortality so that by 1980 a country-wide average of 97 calves raised from 100 cows could be reached. At the same time the raising of heifers, the organization of herd turnover must be developed on a planned basis by means of cooperation in the mountain areas. Improving the quality of the stock and balancing disproportionate density differences must be managed by agriculture and nutrition ministries in cooperation with regions and districts so that effective shifts of breeding and feedlot cattle can be organized by breeding enterprises.

Agricultural enterprises must especially strive for the maximum utilization of forage crops, set feed amounts on the basis of scientific programming, bring order to practices of accounting for forage crops and consistently inspect their management. They must evaluate the work of keepers and zootechnologists not only according to the achieved productiveness of their livestock, but also according to the degree to which the value of fodder is increased.

In swine husbandry, the 13th Session of the CPCZ Central Committee resolution emphasizes continuing the hybridization program, lowering mortality and, together with the rational utilization of forage crops, decrees the assurance of increase productiveness. For poultry it is a matter of increasing the production of water fowl and turkeys in accordance with consumer requirements. Greater attention must also be devoted to sheep husbandry, particularly because of their ability to utilize otherwise marginally useable sources of fodder.

Agricultural enterprises and administrative agencies must adopt decisive measures for lowering the consumption of concentated fodder per unit of production. Workers in the fodder industry are required to improve the quality of fodder mixtures, delivery reliability and the stabilization of fodder storage. The Ministries of Agriculture and Nutrition, Industry and Public Health must more rapidly and consistently implement measures to assure the production of protein components from domestic sources and resolve the delivery of biofactors in cooperation with planning commissions.

The Evolution of Livestock Production During the First 4 Years of the Sixth Five-Year Plan and the Outlook for 1980 Confirm the Difficulty of Fully Implementing the Resolutions of the 13th Session of the CPCZ Central Committee

The evolution of livestock production from 1976 to 1979 and the outlook for 1980 create the preconditions for the fulfillment and overfulfillment of the whole Sixth Five-Year Plan for the purchase of eggs by 101.5 percent and poultry for slaughter by 106 percent, while the plan for animals for slaughter is expected to be fulfilled by only 96.5 percent and that for milk by 97.1 percent.

The main reason for a slower growth rate in market production of animals for slaughter and milk is, above all, the uneven provision of the fundamental material-technical requirements for its development, and especially the failure to ensure of the requisite level of fodder supplies. In addition, subjective factors continue to have great significance in the mobilization of production potential. While bulk fodder was the weak link from 1976 to 1979, the available sources of concentrated fodder will be the limiting factor in 1980 production. An ongoing negative factor has been a continual worsening of the nutritional and biological values of fodder mixtures, which has as its main consequence a systematic reduction in the production intensity of swine for slaughter.

A favorable growth rate in livestock production was reached in 1977 and 1978, when livestock production for market almost reached the level set forth in plan directives.

Cattle Husbandry

We have been successful in strengthening the production basis of cattle husbandry in accordance with Sixth Five-Year Plan directives. We can expect by the end of 1980 that the total number of cattle will increase from the 1975 level of 4,554,800 head to 4,960,000 head, which will be 85,000 head more than projected in the Sixth Five-Year Plan.

Given this relatively favorable development in total numbers of cattle, the stagnation in the number of cattle being fattened for slaughter means that the yearly increases have occurred mainly in heifer herds and in a broadening of the reproductive base. On the other hand, the development in numbers of cows indicates that the Sixth Five-Year Plan indicator in this area will be underfulfilled by approximately 40,000 cows.

The stagnation in total number of cows for the sector as a whole has come about above all due to a significant decline in the number of head kept by backyard farmers and private farmers. While by 1979 the total number of cows kept by these two groups had declined by 75,900 head from the 1975 figure, the number of cows in the socialist sector had increased by 82,100 head.

In this situation a favorable reproduction rate is being achieved by the increased raising of heifers and their integration into an insemination program. In comparison with 1975 figures, the number of first heifer inseminations has increased from 27.8 to 33.1 head per 100 cows, and the number of heifers successfully impregnated from 465,700 to 570,700 head, an increase of 22.5 percent. Calf mortality is fluctuating, on a nationwide scale, within biologically and economically tolerable limits, but we have been unsuccessful in achieving significant progress towards more effective prevention in the battle with losses in the remaining categories of cattle, including cows. Calf mortality has declined about 1 percent (i.e. by 20,000 head) in comparison with the 1975 figures. In the other categories of cattle, on the other hand, an average of 83,000 to 88,000 head will die each year of the Sixth Five-Year Plan, which reflects in part an increase in cow mortality from 12,824 head in 1975 to more than 16,000 head in 1979.

In order to strengthen the production base for the production of cattle for slaughter, we succeeded as early as 1978 in implementing a measure lowering the yearly number of slaughtered calves to 200,000 for the CSSR, and to eliminate, as an element in the production of cattle for slaughter, the relatively inefficient fattening of young cattle to low slaughter weights.

But in spite of these partial successes in total numbers and in reproduction, without the fundamental resolution of the problems of the fodder base, cattle husbandry remained the weak link in livestock production with respect to fulfilling objectives. The reason for this unfavorable development is that we did not succeed in mobilizing a fundamental source of increased production; i.e. increasing the slaughter weight of cattle, including cows, to between [illegible] and 500 kg and increasing the daily weight increases of cattle being fattened from 0.80 to 0.85 kg.

The stagnation of daily weight increases in the fattening of cattle, and their gradual reduction from the 0.76 kg achieved in 1975 to 0.73 kg in

1978 and 0.70 kg in 1979, has also led, given the attempt to create needed meat supplies, to a gradual reduction in the average slaughter weight of cattle from 493 kg in 1975 to 477 kg in 1978 and 460 kg in 1979. The 1978 purchases alone of cattle for slaughter, due to lower weights, were over 21,000 tons less than in 1975, and 1979 purchases were 50,000 tons less. Total unutilized potential arising from these lower slaughter weights represents more than 50 percent of the expected purchasing shortfall for the Sixth Five-Year Plan.

The lower rates of weight gain and the purchase cattle for slaughter with lower slaughter weights, combined with the attempt to provide necessary meat supplies have also led to a growing reduction in herds, which has systematically weakened the production basis in terms of total numbers for individual years, and slowed the growth rate of cattle husbandry.

A similar evolution has been taking place in the production and purchasing of milk, in which about 700 million liters of the projected purchase plan will not be available. About 340 million liters of this shortfall is due to the lower numbers of cows, and about 360 million liters will not be produced due to a lower output per cow than projected by the Sixth Five-Year Plan. Yearly per-cow productivity showed a favorable trend only in 1977 (an 81-liter increase) and in 1978 (a 50-liter increase). In comparison with the intention of achieving, during the Sixth Five-Year Plan, an average increase in per-cow productivity of 250 liters, average yearly output will increase only by about 150 liters.

A further objective has been "to establish, in the course of the Sixth Five-Year Plan, a trend towards the gradual realization of use differentiation and an intensification of the gradual specialization of agricultural enterprises in the production of milk and cattle for slaughter." During 1978 and 1979 the implementation of this long-range objective reached the stage of formulating and refining the conception for the development of cattle husbandry at the level of the agricultural enterprises. An attendant undesirable phenomenon of the conceptions of several agricultural enterprises, and of the mid-management level, is to apply, in opposition to the efforts of breeding organizations, the increasingly predominant policy of "any kind of fashionable" crossbreeding, without regard for national economic interests. This situation contains the risk of a gradual movement away from raising domestic cattle breeds with good meat production qualities and their planned replacement with a breed of dairy cattle with inferior meat production characteristics.

Swine Husbandry

The current development of swine husbandry will create a situation in which 62,000 more swine for slaughter will be purchased than projected by the Sixth Five-Year Plan. This favorable level of fulfillment of purchasing objectives for swine for slaughter has been achieved primarily by a difficult-to-achieve increase in the total numbers of swine, necessitated by a stagnation in daily weight gain figures and their gradual reduction from a 1975 level of 0.51 kg per day to 0.50 kg in 1979, mostly as a consequence of the worsening nutritional and biological level of fodder mixtures. In comparison with the 1975 figures, the total number of swine will increase by the end of the Sixth Five-Year Plan from 6.683 million head to about 7.750 million head, which will be approximately 1.060 million head more than projected by the plan. During the same period the number of sows will increase from 508,600 to 570,000 head. This 16-percent increase in the total number of swine has been achieved by a favorable development of reproduction in addition to a 12.1-percent increase in sows. In comparison with 1975, the number of successfully raised pigs per sow will increase in the course of the Sixth Five-Year Plan from 15.9 to 16.9 head. As early as 1978, 16.7 pigs were being produced per sow.

The central management of production and distribution of hogs for insemination, and natural breeding assured by the breeding service contributed to improving the breed structure of the basic swine herd. The result of these policies will be an increase in the percentage of meat-final hybrids in the course of the Sixth Five-Year Plan from 15.5 percent to 59.4 percent and the overfulfillment of the 15th CPCZ Congress resolutions adopted to improve the quality of dressed pork.

Current experience in the implementation of this hybridization program indicate that a systematically worsening health and infection situation is the chief problem in the guaranteeing of these resolutions through an application of mass-production husbandry principles in the breeding herds.

For instance, a study carried out in March 1979 showed that, due to a health quarantine, 40 percent of the sows of Landras stock and 30 percent of the sows of the paternal stocks of improved breeds were excluded from hog production. At present, two of the five improved giant breeds are quarantined because of an outbreak of tuberculosis and Aujeszky's disease.

It is essential that we take account of these realities in organizing the hybridization program for swine husbandry in the Seventh Five-Year Plan, above all in order to further strengthen improvement and stock development work in the maternal and paternal populations of the basis of improvement units which will assure the higher biological quality of the resultant material in terms of a stabilization of the infectious and health situation at an economically and biologically tolerable level.

Poultry Husbandry

In the Sixth Five-Year Plan poultry husbandry remains the sector of livestock production with the highest growth rate. The production and purchase of poultry for slaughter will increase during this period from 177,900 tons to 232,000 tons, representing a 30.4-percent increase in purchases, and purchases of 62,000 tons in excess of planned levels.

Favorable results are also being achieved in the secondary areas of production and purchasing of poultry for slaughter. In comparison with the 1975 figures goose production will increase from 1.8 to 2.6 percent of the total volume of poultry for slaughter, and turkey production from 2.5 to 3.4 percent of this total by 1980. On the other hand, the growth rate of the percentage of chickens for slaughter is leveling off at about 77.6 percent of the total and, after saturating the market, the level of ducks for slaughter is stagnating at about 7.8 percent of total volume.

Favorable development trends are also being achieved in the production and purchasing of eggs for consumption. The purchase of eggs for consumption will increase by 13.3 percent by the end of the Sixth Five-Year Plan in comparison with the level in the last year of the Fifth Five-Year Plan, and the planned market production for the Sixth Five-Year Plan will be exceeded by about 183 million eggs. In addition to the favorable development in the production and purchasing of the basic products of poultry husbandry, there has been success in the course of the Sixth Five-Year Plan in further strengthening the production basis of this sector of livestock production in the socialist sector. The percentage of the total poultry population raised in the socialist sector will increase in the course of the Sixth Five-Year Plan from 67.3 to 75 percent and the percentage of the total population of laying hens from 46.2 to more than 53 percent.

Sheep Husbandry

The development of sheep husbandry will permit the achievement of only limited successes during the Sixth Five-Year Plan. While the total number of sheep will increase from 804,500 to about 900,000 head and the purchase of raw fleece will increase from 2,489 to about 4,000 tons, i.e. by about 60.7 percent, the planned purchase of sheep fleece for the whole Sixth Five-Year Plan will be underfulfilled by 878 tons.

The socialist sector contributed 71.3 percent of the growth in herd numbers, and the private sector 28.7 percent. Developments to date indicate that actual purchases during the Sixth Five-Year Plan will fall 23,600 tons short of the target for sheep for slaughter, in spite of some successes in the development of the intensive and semi-intensive fattening of lambs (138,000 head by 1980 compared with 134,000 head in 1975)reflected in an increase in average slaughter weight from 24 to 30.7 kg.

Helping Livestock Production Through Efficient Implementation of Adopted Measu Measures

Our magazine wants to assist in the most efficient implementation of the resolutions of the 13th Session of the CPCZ Central Committee, which confirmed the Decembers session of the CPCZ Central Committee as the instrument for overcoming the disproportions between plant and livestock production and for increasing the production of bulk fodder, by making it possible for our agricultural enterprises, services, individual management elements and contracting sectors to exchange their experiences in mobilizing production potential and ensuring production targets. We are announcing a symposium on questions relating to implementing the resolutions of the 13th Session of the CPCZ Central Committee for the fulfillment of the Sixth Five-Year Plan entitled: "Strengthening the Livestock Production Base for the Seventh Five-Year Plan Through the Implementation of the Resolutions of the CPCZ Central Committee Session."

I am confident that this symposium will assist our socialist livestock production to fulfill its objectives in the period prior to the 16th CPCZ Congress.

9276
CSO: 2400

FLUCTUATIONS IN LABOR FORCE SEEN COSTLY TO ECONOMY

West German Commentary

Bonn INFORMATIONEN in German No 7, Apr 80 pp 15-17

/'Background' report by FRG Ministry for Inner-German Relations: "People's Chamber Committee Investigates Fluctuation Problem." A translation of the East Berlin NEUES DEUTSCHLAND article cited below follows this report/

> /Text/ The People's Chamber Labor and Social Policy Committee recently studied the problem of fluctuations in the GDR's industrial labor force. The aim of this study is to discover the reasons why people are changing jobs too frequently. According to People's Chamber Deputy Heino Hinze, about 500,000 workers change jobs in the course of a year. This entails substantial losses in productivity, work time and job-related training, plus the considerable social effects. Hinze said that the accompanying negative consequences to the efficiency of the GDR economy were the reasons why the People's Chamber committee has been researching the fluctuation problem intensively in the past few months -- following studies on scientific labor organization, sick-leave trends and the effects of rationalization on working and living conditions.

At the beginning of April, the SED organ NEUES DEUTSCHLAND wrote as follows in a report on the work of the People's Chamber committee regarding this problem:

"To us it is axiomatic that every citizen is guaranteed the right to work. Full employment is a pillar of our economic and social policies. No one here needs to hold on to a job 'at all costs' for reasons of survival. It is in the interest of both society as well as the individual to safeguard the right to work as effectively as possible. Effectively -- that is the key to the problem."

That economic growth is to be achieved only by improving effectiveness in the use of manpower becomes obvious merely on the basis of the high level of employment. According to the GDR's own figures, its rate of 51 percent of the total population heads the list, while leading Western industrial states are able to show employment rates of between 40 and 45 percent.

According to NEUES DEUTSCHLAND on 13 February 1980, however, the labor potential will be developing differently in the future: While the number of employees in industry has risen from 2 million to 3 million over the last 25 years, it can no longer be expected that additional manpower will leave agriculture for industry (the number of persons employed in agriculture dropped from 2 million to 850,000 in the same period). Furthermore, the number of people of working age will be increasing at an even slower rate than in the decade just past -- the number rose by 500,000. Moreover, since the tertiary sector -- services, medical care, culture and education -- will be claiming "a larger share of society's labor resources, a gradual decline in industry's employment figures can already be predicted."

Causes of Fluctuation

After work groups had made appropriate studies in various enterprises, combines and kreises, the People's Chamber committee determined that plant atmosphere and infrastructure were the primary causes of too frequent job changes. For instance, differences in the availability of housing or day-care spaces provided for enterprises played a major role. The fluctuation rate was therefore generally found to be the highest in the 20-30 age group. Also a factor is the frequent difference between wish and reality in vocational choices made by the younger generation. A commentary in the East BERLINER ZEITUNG made the following observations in this regard: "A very rosy picture was used to recruit young people to learn the trade in a china factory, and now the reality which they are encountering there does not coincide with their ideal." According to the commentary, "development of the sense of belonging" should therefore be begun as early as the 7th grade -- at the time when schoolchildren are directly exposed to production for the first time within the framework of their polytechnical instruction.

An unfavorable plant atmosphere and poor working conditions are further important causes of spontaneous turnover. If these causes are to be controlled, the immediate work environment must be organized with a view to the gradual elimination of heavy manual labor, work performed under conditions of heat, dust and noise and the elimination of monotonous work processes. According to Heino Hinze, monotony on the job is an essential cause of turnovers particularly with those young people who initially had other ideas about their vocations. The situation must be remedied by changing working conditions, not by changing the recruiting prospectus -- as had been suggested by one of the enterprise directors affected by the problem. The People's Chamber deputies recommended that the combine managements "provide for greater interchangeability of assignments for the work force so that they would not have to execute only the same single hand movement over and over."

"Inconsistency in applying the performance principle" is a further motive for moving from one enterprise to another. Says Hinze: "It can happen at times that it is easier to earn the same amount of money -- or even more -- at a neighboring enterprise than at one where wages and bonuses are tied to precise adherence to incorruptible index figures."

In the interest of a more consistent enforcement of the performance principle, new basic wage scales have been instituted since 1976 for 1.4 million production workers, other wage policy measures have been put into effect for an additional 3 million wage earners. These changes are designed to support the formation of "stable collectives." "Fluctuations have declined noticeably in the majority of the enterprises that have instituted the new basic wage scales," said Hinze.

Effects of Fluctuation

As the People's Chamber deputy confirmed in a radio broadcast, the fluctuation problem has worsened in recent years: "Meanwhile, we know that the fluctuations worsened in 1979 compared to the previous year."

About 500,000 workers change jobs in the course of a year. Experts estimate that this causes the GDR economy to lose the labor resources of 50,000 workers per year. These figures are based on the following estimates: There is an average of 5 days between the end of the old job and the start of the new one. Added to this are losses in productivity during the period of adjustment to the new job. It is generally accepted that it takes between 20 and 30 working days for the "new person" to attain the average performance level of his new collective in terms of quality and productivity. It has been calculated that every job turnover initially produces an overall "loss of effectiveness to society of about M 8,000 to M 10,000."

Hence, if 0.5 million workers change jobs each year, the result is an overall economic loss of between M 4 billion and M 5 billion. The "wandering between plants" -- insofar as undesired from the standpoint of the economy as a whole -- thus entails substantial costs. The fluctuation is fed by the excessive manpower requirements of the enterprises. Said the East BERLINER ZEITUNG on this point: "The investigations by the deputies revealed that the enterprises are investing a great deal of energy in recruiting new manpower but are making too little effort to minimize fluctuations."

To be sure, it may not always be easy in practice to distinguish between socially desirable and undesirable job turnovers. Structural change and rationalization measures definitely require manpower migrations. As long ago as May 1978, for instance, GDR Council of Ministers' Chairman Willi

Stoph had demanded that the enterprises "release manpower in the interest of an effective use of newly established capacities." But those jobs were actually supposed to be eliminated.

The GDR's manpower problem is chiefly one of productivity, for -- according to the East BERLINER ZEITUNG -- "we therefore have too many unproductive jobs rather than too few workers." The following figures taken from the FDGB journal TRIBUENE show how few jobs have been eliminated in recent years: "Between 1976 and 1978, a total of 7,700 jobs were eliminated in the GDR -- but 30,000 were created in connection with investments." The intention is to halt this unfavorable trend this year. By reducing costly expansion investments in favor of rationalization investments, 20,000 workers are to be released fur new capacities.

People's Chamber Studies Causes, Effects

East Berlin NEUES DEUTSCHLAND in German 2 Apr 80 p 3

[Article by Eberhard Hussek: "Current Economic Considerations: Stable Enterprise Collectives Instead of 'Wandering Between Plants' -- A Stationary Permanent Staff Is a Decisive Factor in Increasing Labor Productivity -- Fluctuations, on the Other Hand, Cost Valuable Labor Resources -- People's Chamber Delegates Have Researched the Causes and Effects"]

[Text] One of the main factors upon which productivity and economic efficiency depend is the most effective use of society's labor resources. This term takes in more than just the number of available workers multiplied by the average working time in a year. As we know, labor resources also include the qualifications of the workers, the aggregate of their knowledge, capabilities, experience and skills. And it is undisputed that the productive capacity of a permanent staff that has been stable and settled for years is greater than that of a collective whose staff is constantly changing.

Differences in Enterprise Loyalty

What is the situation with loyalty to our enterprises?

The People's Chamber Labor and Social Policy Committee recently researched this question. Work groups of deputies studied it in various enterprises, combines and kreises. This article will report on some aspects that were brought to light.

Of course the departure of workers from an enterprise is also due to natural causes (age, invalidism and so forth) and societal requirements (induction into military service, assignment to pursue further education or acceptance of employment in a new and economically important position, for example). These factors will not be given a closer examination here. But it is the unpredictable, spontaneous arrivals and departures that are seriously hindering the development of permanent staffs. We call these fluctuations -- and they lessen the effectiveness of our society's labor resources.

To us it is axiomatic that every citizen is guaranteed the right to work. Full employment is a pillar of our economic and social policies. No one here needs to hold on to a job 'at all costs' for reasons of survival. It is in the interest of both society as well as the individual to safeguard the right to work as effectively as possible. Effectively -- that is the key to the problem.

The investigations of the People's Chamber committee have made clear that the development of stable staffs is a very wide-ranging and complex process, one that pursues many different paths. In some instances there are substantial disparities between the sectors of the economy, but also between the enterprises within a branch or a region.

One of the enterprises with a stationary permanent staff is the Eberswalde Crane Construction VEB, while Karl-Marx-Stadt's Robotron business machine plant is characterized by excessive "movement." And in the fine china combine sector, the declining fluctuation at Ilmenau's Henneberg Porcelain VEB is countered by an increase in turnover at the Kahla parent enterprise.

Or let us look at the city of Brandenburg (Havel): Last year the turnover rate in the enterprises situated there fluctuated between 3 and 15 percent (a fluctuation which, incidentally, comes close to being true for the economy as a whole). It was gratifyingly low at the railroad's plant for track construction as well as the steelworks and rolling mill, but the rate was higher than average at the worsted spinning mill and the Contruction Repairs VEB.

What accounts for these differences?

Economic Levers Alone Do Not Suffice

The location of an enterprise in its territory and its "economic neighbors" definitely play a role. For objective reasons, at present there are still many differences in the number of apartments or day-care spaces available to enterprises. But experience in Brandenburg and elsewhere has also shown that the greater the overall improvement in the living conditions in a city or a region, the quicker such factors lose their significance.

In many places there is still inconsistency in the application of the performance principle and in the utilization of invested capital. It can happen at times that it is easier to earn the same amount of money -- or even more -- at a neighboring enterprise than at one where wages and bonuses are tied to precise adherence to incorruptible index figures.

Since 1976, new basic wage scales have been instituted so far for 1.4 million production workers in connection with scientific labor organization; other wage policy measures have been put into effect for an additional 3 million workers. These steps have undoubtedly helped bring about greater implementation of the performance principle. They have also encouraged direct participation by the working people in structuring their working conditions, and from this aspect they have supported the establishment of stable collectives. Fluctuations have declined noticeably in the majority of the enterprises that have instituted the new basic wage scales.

Nevertheless, practical experience has shown that economic levers alone do not produce the desired effect. The main attractions of an enterprise for those who work in it are the atmosphere, the work environment, the relationship among colleagues. The tie that binds the workers to their enterprise is largely that it is not only their work that is prized, but also their opinion.

How Pride in One's Profession and Creativity Thrive

Klaus Jaehner, enterprise director of the Eberswalde Crane Construction VEB, corroborated this before the People's Chamber committee on the basis of his own experience. He was absolutely right in pointing to the inner connection between continuity of the work, a willingness to produce and stability of the collectives: "The workers are content wherever the work is well managed and organized and the performance principle is properly applied. That is where they put the most effort into their working hours, where professional pride and innovation thrive. Wherever this situation prevails, everyone has the feeling of being needed, and the collectives also stick together."

An atmosphere like this does not just happen; rather, it is the result of a politically experienced, resolute and farsighted management. It thrives best where the social forces work together in the right way under the leadership of the party organization, where the union takes good care of the interests of the colleagues and the FDJ sees to it that the younger employees are trusted and given responsibility. The experiences from Eberswalde teach that the master workmen play an especially important role in this process.

The sense of belonging basically begins to develop at the point when 7th grade students are directly exposed to production for the first time in their polytechnical classes. The impressions gained there influence to a certain degree their ideas of the work they will do in the future. Upon the choice of a vocation, these ideas become more precise and are consciously guided in accordance with the needs of society and personal inclination.

This feeling is carried over into vocational training and the period immediately following this training. Indeed, the preparation of young workers for their future vocations involves more than just passing on expert knowledge and skills and providing a job. It also includes helping the young skilled workers grow into the collective as rapidly as possible and reach the performance levels of experienced colleagues. A precondition for this is the understanding of managers for the all-round development of the personality.

Resulting from this are conclusions for social planning ranging from direct organization of the work and the gradual elimination of heavy manual labor, heat, dust, noise and monotony to living conditions and on to providing for cultural and athletic leisure interests. This creates a feeling of kinship with the enterprise that carries over to the next generation and the following one, with children and grandchildren feeling that building cranes, for example, is a respected profession, that it would be worthwhile spending one's life working industriously in that field.

The management of the Eberswalde Crane Construction VEB has always ascribed great importance to these things. By contrast, those in responsible positions at the Kahla porcelain factory had to confess in their session with the deputies that they have heretofore not paid sufficient attention to this aspect of utilizing their labor resources. The conflicting trends in the area of fluctuations are unquestionably a result of their lack of action.

Until a New Colleague Has Been "Broken In"...

Thus, there are good reasons why the deputies are researching this set of problems so thoroughly, since the fluctuations also have serious economic effects. Each job turnover means that another colleague has to work into the job. It is generally accepted that it takes 20 to 30 working days for the "new person" to attain the average performance level of his collective in terms of quality and productivity. In addition, many a switch from one enterprise to another involves a temporary "layoff" -- whether desired or not.

Experts estimate that fluctuations cause the loss of labor resources equal to 50,000 workers per year measured on the scale of the national economy. Thus, there is reason enough to study the causes of "wandering between plants" everywhere just as earnestly as has been done in recent months by the People's Chamber Labor and Social Policy Committee.

The deputies themselves will not be letting the matter rest with these investigations. They are merely part of an extensive long-range work program. In the weeks ahead, for example, special investigations are scheduled on the utilization of working hours in industrial and construction enterprises in Dresden and Halle bezirks and the capital, Berlin. This will also enable the deputies to submit to the Council of Ministers suitable proposals for solving problems of long standing. And at the same time, the People's Chamber committee will be helping generalize the best experiences for an effective use of our society's labor resources.

7458
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PROCUREMENT OF MATERIALS IN 1980 DISCUSSED

Warsaw GOSPODARKA MATERIALOWA in Polish No 2, 16-31 Jan 80 pp 38-41

[Article by J.S.: "Procurement of Materials in 1980"]

[Text] During 1979 there were difficulties in procurement in energy, fuels, raw materials and other materials. The incomplete implementation of tasks of the production of raw materials and other materials, price increases on imports and, in conjunction with this, limitations on the volume of items supplied from abroad, interruptions in the supply of electrical energy--all of these taken together disturbed the balance in many sectors of the procurement market. In the 1979 monthly analysis of supplies of approximately 70 of the most essentials fuels, raw materials and other materials, only several dozen items of supply were received as per the annual plan of deliveries. For the remaining raw materials and other materials, deliveries were significantly smaller than planned. In addition, for many items of raw materials and materials supply, deliveries for production were smaller in 1979 than in 1978.

In the first half-year of 1979, it was necessary to depart from certain principles laid out by the general conditions of sale and delivery agreements, which postponed the date for implementing the agreements and suspended the action projected by the agreements to set fines for non-compliance with certain conditions of procurement deliveries. In March 1979, far-reaching changes were made in the distribution indexes of the major raw materials and other materials, reducing the original allotments in conjunction with delays in the production of these raw materials and other materials. As a rule, these allotments did not increase, since delays in the production of raw materials and other materials continued, and in some cases grew through the end of 1979 in comparison with the situation in March 1979.

These delays (with reference to the plan for 1979) arose primarily in the production of rolled products, plastics, cement, lumber, paper and cardboard, copper, zinc, tires, paints and varnishes, as well as many other materials.

In the second half-year of 1979, in the face of continued pressures in the procurement of basic raw materials and other materials, the central control of deliveries of approximately 15 large groups of these raw materials and other materials was introduced, creating labor teams in 6 ministries specially called to this end. Their task was to direct the procurement to manufacturers who then determined procurement by many consignees, as well as to avoid the consequences of unrestricted distribution of limited material resources.

To be sure, the various endeavors undertaken during 1979 to mitigate the consequences of insufficiencies in the procurement of fuels, energy, raw materials and other materials could not settle many questions connected with real shortages in procurement. A significant number of enterprises did not implement production plans, partly as a consequence of shortages in the procurement of materials. The number of such enterprises in 1979 was twice that of 1978, and 3-times that of 1977. Tasks in industrial production planned for 1979 were not executed, and according to preliminary estimates of the 1979 industrial production growth, [only] half of the planned increase was achieved. If we consider the fact that for 1979 the increase in the production of capital goods was greater than planned, this had repercussions in the decreased growth rate of procurement production, and then market and export production. All of this caused the deterioration of the discipline of implementing balances, plans of distribution, agreements and orders for deliveries of fuels, raw materials and other materials, aside from the objective causes, in 1979.

Growing irregularities in stock management accompanied disorders in deliveries of fuels, raw materials and other materials in 1979. Several ways in whcih this was expressed were the growing stock absorptiveness of industrial and construction production, a significant increase in the stocks of materials held by consigness in the face of continued shortages, and an increase in the value of irregular stocks.

As an example, we have compiled below data concerning the relation of the value of stocks in general and stocks of materials and their monthly value for industrial production in the final months of the first three quarters of 1979:

Table 1.

Specification	March		June		September	
	Stocks in General	Materials	Stocks in General	Materials	Stocks in General	Materials
Industry	1.96	1.19	2.13	1.33	2.25	1.42
Industry excluding Ministry of Food Industry and Purchases	2.96	1.28	2.25	1.42	2.35	1.48

Per 1 zloty of industrial production, in March stocks of materials for 1.19 zlotys were employed, in June stocks of materials for 1.33 zlotys, and in September, for 1.42 zlotys. This represents a clear fall in the efficiency of the utilization of stocks, the growth rate of which is more rapid than the growth rate of production.

In 1979 the anticipated improvement in the material costs of production was not achieved, which may be partly justified by the additional outlays and losses resulting from delayed and insufficient deliveries of fuels, energy, raw materials and other materials.

It is estimated that the reduction in material costs in industry in 1979 amounted to approximately 10 billion zlotys (0.6 percent) compared to nearly 26 billion zlotys (1.5 percent) according to the plan, with an increase of material costs in construction of nearly 400 million zlotys (0.2 percent) as compared to the planned reduction of nearly 750 million zlotys (0.3 percent). In sum, this is quite damaging to the national income estimated at approximately 17 billion zlotys.

The situation in procurement of fuels, energy, raw materials and other materials in 1979, the situation in the management of stocks of materials associated with this (a situation characterized primarily by an unsuitable structure and distribution of stocks), and the insufficient progress in the efficient consumption of fuels, energy, raw materials and other materials point to the fact that the tasks for 1980 are very difficult ones. A great, all-around effort is needed to correct the state of equilibrium of the so-called procurement market.

The national socioeconomic plan for 1980 takes into consideration this state of affairs, both as it affects the tasks of production growth and as it relates to management efficiency, as well as in endeavors to improve the control of development of the economy.

A moderate rate of growth, between 3.0 and 4.2 percent, is assumed for industrial production. Due to procurement difficulties in the area of raw materials and other materials, and the foreign trade situation as well, a level of construction output lower than the 1979 level is foreseen.

Against the background of the general assumption of the National Socioeconomic Plan for 1980, the following major tasks in the material economy stand out clearly:

--To improve efficiency in the use of fuels, energy, raw materials and other materials by means of the verification of norms, the reduction of their per-unit consumption and the implementation of conservation programs. Greater precision in setting up and coordinating developmental tasks in science and technology, as well as tasks in scientific-research institutes and design and construction offices with the needs of the rational economy of fuels, energy, raw materials and other materials is indispensable. The results of implementing these tasks should be taken into consideration in assumptions to reduce the unit material costs of production and to conserve fuels, energy, raw materials and other materials. We must make better use of local and waste raw materials, as well as of the potential of the local production of construction materials. We must also increase the utilization of secondary raw materials.

--To improve the relationship between the growth rate of stocks and the growth rate of production; to improve the structure of stocks while at the same time limiting the volume of excess and useless stocks; to step up inspections on compliance with the norms of stocks or raw materials and other materials.

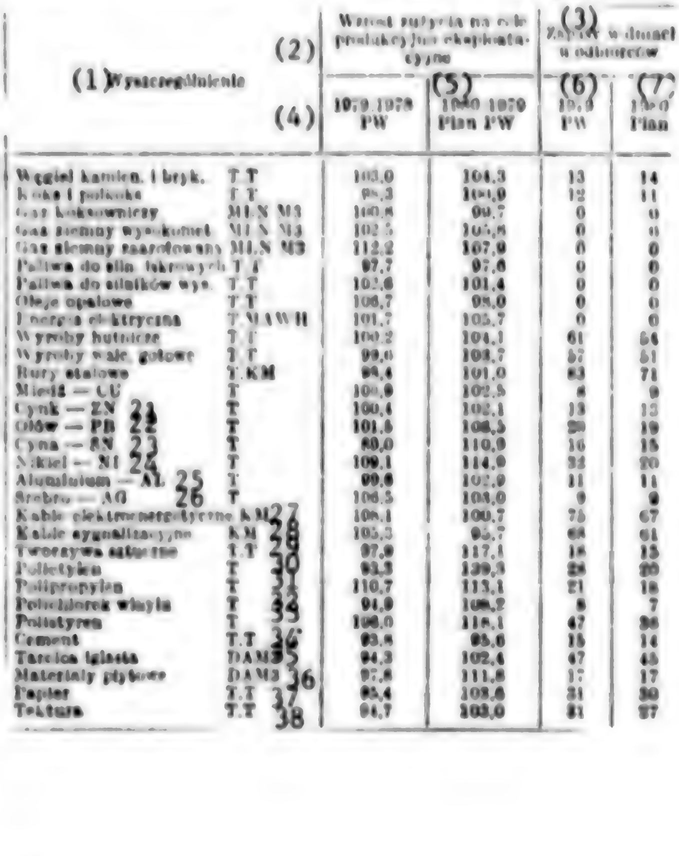
--To strengthen discipline in the implementation of deliveries of fuels, energy, raw materials and other materials covered by agreements and orders, and especially to improve the regularity and punctuality of deliveries.

--To create sector systems of the centralized control of stocks.

According to the rate of production assumed in the plan, procurement production taken together with imports should be great enough to enable the attainment of the final goals of assumed production. Moreover, with the undertaking of tasks for reducing material costs in industry by 1.2 percent it is estimated that the plan will ensure the total balancing of volumes of procurement with the material needs of production (Table 2).

Table 2. Increase in Consumption and Changes in Stocks or Raw materials and Other Materials

Key: 1. Specifications 2. Increase in consumption for production-utilization purposes 3. Stocks in [number of] days they are consignees 4. 1979:1978 Plan Fulfilled
5. 1980 Plan: 1979 Plan Fulfilled
6. 1979 Plan Fulfilled
7. 1980 Plan
8. Hard coal and briquets (1,000 tons)
9. Coke & semi-coke (1,000 tons)
10. Coke-over gas (million cu meters)
11. Natural gas with a high methane content (million cu meters)
12. Nitride natural gas (million cu meters)
13. Spark-ignition engine fuels (1,000 tons)



	(1) Wyszczególnienie		(2) Wzrost zużycia na cele produkcyjno-eksploatacyjne		(3) Zapasy w dniach u odbiorców	
			(4) 1979:1978 PW	(5) 1980:1979 Plan PW	(6) 1979 PW	(7) 1980 Plan
8	Węgiel kamien. i bryk.	T.T	103,0	104,3	13	14
9	Koks i półkoks	T.T	98,3	101,9	12	11
10	Gaz koksowniczy	MLN M3	100,8	99,7	0	0
11	Gaz ziemny wysokometan.	MLN M3	102,5	105,8	0	0
12	Gaz ziemny zaazotowany	MLN M3	112,2	107,9	0	0
13	Paliwa do siln. iskrowych	T.T	97,7	97,6	0	0
14	Paliwa do silników wys.	T.T	102,6	101,4	0	0
15	Oleje opałowe	T.T	108,7	98,0	0	0
16	Energia elektryczna	T.MWH	101,7	105,7	0	0
17	Wyroby hutnicze	T.T	100,2	104,1	61	66
18	Wyroby walc. gotowe	T.T	99,0	103,7	57	51
19	Rury stalowe	T.KM	98,4	101,0	83	71
20	Miedź — CU	T	100,9	102,5	8	9
21	Cynk — ZN	T	100,4	102,1	13	12
22	Ołów — PB	T	101,5	108,5	20	19
23	Cyna — SN	T	80,0	110,9	16	15
24	Nikiel — NI	T	109,1	114,9	32	20
25	Aluminium — AL	T	99,8	102,9	11	11
26	Srebro — AG	T	106,5	103,0	9	9
27	Kable elektroenergetyczne	KM	106,1	100,7	75	67
28	Kable sygnalizacyjne	KM	105,3	95,7	68	61
29	Tworzywa sztuczne	T.T	97,9	117,1	16	15
30	Polietylen	T	93,3	120,3	28	20
31	Polipropylen	T	110,7	113,1	21	18
32	Polichlorek winylu	T	91,9	106,2	8	7
33	Polistyren	T	106,0	118,1	47	36
34	Cement	T.T	93,8	95,6	15	14
35	Tarcica iglasta	DAM3	94,3	102,4	47	45
36	Materiały płytowe	DAM3	97,8	111,8	17	17
37	Papier	T.T	95,4	103,6	31	30
38	Tektura	T.T	94,7	103,0	31	27

14. Diesel engine fuels (1,000 tons)
15. Furnace oils (1,000 tons)
16. Electrical energy (1,000 megawatts)
17. Metallurgical products (1,000 tons)
18. Read-made rolled products (1,000 tons)
19. Steel pipes (1,000 kilometers)
20. Copper--Cu (tons)
21. Zinc--Zn (tons)
22. Lead--Pb (tons)
23. Tin--Sn (tons)
24. Nickel--Ni (tons)
26. Aluminum --Al (tons)
26. Silver--Ag (tons)
27. Power cables (kilometers)
28. Signal cables (kilometers)
29. Plastics (10,000 tons)
30. Polyethylene (tons)
31. Polypropylene (tons)
32. Polyvinyl chloride (tons)
33. Polystyrene (tons)
34. Cement (10,000 tons)
35. Softwood (cubic decameters)
36. Laminated materials (cubic decameters)
37. Paper (1,000 tons)
38. Cardboard (1,000 tons)

Within the framework of the total balance of the procurement of production consignees in the area of fuels, raw materials and other materials, a significant differentiation in the growth of deliveries and consumption of particular raw materials and materials is anticipated; in certain cases, serious tensions may occur, especially in the procurement of furnace oils, engine fuels, natural gas, coke, goal, rolled products, steel pipes, storage batteries, traction tires, lumber, paper and cardboard. Disruptions may occur in the procurement of tin, aluminum and plastics.

Within the framework of the above-mentioned groups of raw materials and other materials there are significant shortages for a comparatively large number of stocks. There is, moreover, in the procurement turnover an enormous amount of stocks of raw materials and other materials of an auxiliary nature, of which there are significant shortages, as, for example, abrasive materials, chemical reagents, tools, materials for wiring systems, aids for light industry, paints and varnishes, replacement parts for machines and equipment.

Assumptions regarding an increase in deliveries of packaging and packing materials do not allow for the essential lessening of shortages in the procurement of packaging made from plastics, paper, cardboard and metal. This is linked to the limited possibilities for increasing the consumption of raw materials in the production of packaging.

Procurement in aluminum foil, polyethylene and polyvinyl chloride foil will not be able to meet our needs. In this situation, the needs of the food industry will be satisfied at the expense of the other consignees.

To a significant degree, these tensions can be reduced by increasing the efficiency of the use of fuels, raw materials and other materials, by improving the regularity of production and deliveries, by replacing raw materials and other materials in which there are shortages with those that are more accessible, by improving the cooperation of enterprises joined together with procurement and cooperation linkage and by the proper handling of unsuitable stocks.

The necessity for the following is thus made clear:

--the broader use of domestic potentials for increasing the volume of procurement in raw materials and other materials in the face of limited imports,

--granting priority treatment to procurement imports over the import of ready-made products and also taking advantage of the possibility of replacing an import from a country in the II payments area with an import from a socialist country,

--using economic instruments to increase the efficiency of the use of energy, fuels, raw materials and other materials, as well as secondary raw materials,

--holding the increase of stocks in industry at 0.8 percent per 1 percent of production increase, and ensuring that the level of stocks in the construction industry in 1980 does not exceed 1979 volumes; these tasks were taken into consideration in the balance-sheets of materials (products), in the principles of controlling materials procurement and in actions to improve the efficiency of materials management.

The tasks for the year 1980 reveal the need for significantly strengthening discipline in materials management and for improving the methods of the ongoing control of procurement processes. The plan for 1980 establishes the basic tasks in this area and points out the major problems to be resolved, irrespective of the volume of procurement issuing from validated balances.

The volume of deliveries and consumption for individual consignees was established for balances of: hard coal and hard coal briquets, coke and semi-coke, the following gases: coke-oven gas, high methane content natural gas, and nitrided natural gas; furnace oil, electrical power, ready-made rolled products, steel pipes, electrolytic copper, zinc, nickel, aluminum, silver, signal cables, cement, softwood and laminated materials. Moreover, the volume of deliveries resulting from domestic production and imports from states included in the I payments area were established for individual consignees' balances of: lead, tin, power cables, polyethylene, polypropylene and ethylene-propylene copolymers, polyvinyl chloride and vinyl copolymers, polystyrene and copolymers of styrene, paper and carboard. In addition, general directions were established for the distribution of balances of: fuels and energy, gasoline, metallurgical products, nitrogenous, phosphoric and potassium fertilizers, plastics in general, fatty bulk from meat, protein fodders, sugar and basic cereal grains for consumption and fodder.

In 1980 the obligation was insituted to work out the currently implemental balances of materials (products) according to the terminology contained in the instructions for implementing the National Socioeconomic Plan for 1980.* This concerns balances validated by the Council of Ministers, the Planning Commission of the Council of Ministers and the ministers. Implemental balances of materials (products), including balances of packaging and balances of secondary raw materials, should be approved (or assessed) by the Office of Materials Management and presented to the Planning Commission of the Council of Ministers before 29 February 1980.

Of course, until the present, ministries implemented projections of balances within the framework of the draft of the plan; however, as a result of the provisions of the National Scoioeconomic Plan these have changed essentially, and these balances were not always realized. The approved principle should strengthen balancing efforts fundamentally.

At the same time, ministries balancing according to an understanding with the Office of Materials Management set up a schedule of implemental balances of materials (products) which are to be worked out by the appropriate associations. This schedule should encompass, above all, raw materials and other materials on which there are significant shortages. Ministries set up the deadline for individual associations to work out and deposit with the ministry implemental balances of materials (products) for sectors.

The obligation to execute quarterly **evaluations of the implementation of balances of materials (products)** was introduced to be conducted:

--at meetings of the Presidium of the Planning Commission of the Council of Ministers as regards balances validated by the Council of Ministers and the Planning Commission of the Council of Ministers,

--at meetings of the Collegia of the ministries as regards balances validated by ministers.

As each year, the Planning Commission of the Council of Ministers shall execute, before 31 March 1980, a verification of the income and outgo of balances of materials (products) validated by the Council of Ministers and the established allotments on the basis of the analysis of the implementation of deliveries, the actual consumption and the state of stocks on the day of 31 December 1979, as well as the assumed reduction for 1980 with regard to indicators of the consumption of materials and stocks on these days, suitably changing the volumes indicated in balances of materials (products).

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*"Implemental balances"--a newly introduced term defining balances based on validated tasks of the National Socioeconomic Plan for a given year, as distinct from balances included in projections of economic plans set up by ministries.

The plan for 1980 clearly establishes that the volumes of deliveries of distributed materials projected in the balances validated by the Council of Ministers, the Planning Commission of the Council of Ministers and the ministers are maximal, and may not be exceeded without the approval of the validating unit.

In the resolution of the Council of Ministers on the National Socioeconomic Plan for 1980 it was noted that the ministers and directors of associations (i.e., units of equal rank) are responsible for production and procurement of fuels, energy, raw materials and other materials, as well as for ensuring stronger discipline in enforcing product balances. The responsibility of individual levels of management procuring raw materials and other materials is outlined in decision No 49/78 of the Presidium of the Government dated 30 March 1978, concerning stronger discipline in enforcing product balances, and order No 45 of the Chairman of the Council of Ministers dated 3 July 1978, concerning increased responsibility for the procurement of raw materials and other materials.

At the same time, ministers of economic ministries are obliged to set up tasks for control services in the area of procurement of raw materials and other materials.

In 1980 the limit on consumption for production goals is being maintained for: hard coal, coke, furnace oil, electrical energy and gas.

While limits are being set, immediate conservation endeavors toward implementing the assumptions of these balances by ensuring the enforcement of production tasks dependent upon deliveries of fuels and energy will be determined.

In 1980 the limit is also being maintained for the purchase of liquid fuels for low and high compression engines by units of the socialized economy.

The plan for 1980 projects tasks which have as a goal:

--the further reduction of periods of the advance assembling of orders with reference to the date of deliveries of materials and products, if these periods are longer than 60 days.

--an increase in the efficiency of operation of turnovers in means of production by establishing concrete tasks for these units in conjunction with the improvement of service to consignees,

--the continued increase of the sale of stored materials in conjunction with retail sales and increasing the role of the former in general turnovers, as well as the further broadening of the scope of implemented deliveries on the basis of agreements relating to guaranteed procurement.

Materials balances and the plan for 1980 project material and foreign exchange reserves to safeguard the course of procurement of basic raw materials and materials in the event of the incomplete implementation of the production or import of these raw materials and other materials, as well as to take advantage of additional possibilities for the growth of production for export and for procurement for the people. It was not possible, however, in all balances to open up reserves, and often the level of these reserves is relatively small, making disciplined management of them all the more essential.

Considering the need for improved procurement in packaging and packing materials, a foreign exchange reserve has been opened up to this end, with its primary designation the packing of foods.

Despite the pressures of balancing foreign trade, additional foreign exchange means have been reserved for the further activization of the use of secondary raw materials, for the development of the regeneration of spare parts and retread truck tires. The tasks in these areas are closely connected with improved procurement of materials, andachieving an improved state along this course is as a rule swifter and cheaper.

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POLAND

POINTS OF CONTENTION IN EAST-WEST TRADE RELATIONS HIGHLIGHTED

Warsaw HANDEL ZAGRANICZNY in Polish No 1, 1980 pp 32-35

[Article by Janusz Kaczurba: "The East's and West's Points of View on the Problems of Mutual Economic Relations"]

[Text] For some time now the East-West trade relations have come to a more or less explicit halt compared with their unprecedentedly vigorous growth in the first half of the present decade. This concerns not only the volume of mutual economic trade but also the conditions and forms of implementation of that trade, the degree of emotional commitment by the partners, and the long-range assumptions on the position of East-West trade in the whole of the external economic relations on the socialist and capitalist countries. The aim of this paper is to identify the principal aspects of the controversies taking place in this respect within the Western and Eastern economic communities.

The current situation in East-West trade prompts many Western economists to ponder the cause of the sudden mushrooming of that trade in the early 1970s.

In that respect, these economists admit, like their Eastern counterparts, the particularly positive role played by the political factor, especially in the USA-USSR and FRG-East Europe groupings. An equally represented view, however, is that the principal economic motives affecting the attitude of the socialist countries toward the Western countries during that period had been the desire to use East-West trade as a substitute for more thoroughgoing economic reforms. This view derives from the traditional views which, on the one hand, link improvements in the quality and efficiency of production in the socialist countries to the decentralization of economic management and, on the other, oppose such decentralization to the political principles of the [socialist] system of society. That is, according to these Western views, the socialist countries decided to resort to Western technology as the sole way of improving the technological conditions of production without disrupting their centralized economic structure.

In disputing views of this kind it should be primarily pointed out that the growth in the volume of East-West trade had coincided with the initiatives undertaken in most of the socialist countries to streamline management, improve the organization of the apparatus of production and trade, and modify the methods of economic accounting. This was because earlier attempts made in this direction had demonstrated the invalidity of solutions preventing sufficient contact between the nation's economy and the world market. What is more, the rapid expansion and modernization of production capacities became a prerequisite for the gradual economic reform allowing for, to a large extent, the premise of decentralization as well. Such a modernization was indeed best facilitated, relatively speaking, through imports from the developed Western countries. At the same time, the very necessity of servicing that trade became a major incentive for increasing the flexibility of the structure of economic management. It also became an incentive for modifying many economic, administrative, and legal provisions with the object of adapting the socialist economies to the requirements of East-West trade.

The question considered above is related to the cases of the marked slowdown in East-West trade in recent years. The sources of that slowdown are rooted chiefly in the commodity structure of mutual exchange, unfavorable market trends, and the negative effect of certain institutional factors. The experience of East-West trade provides substantial proof that the commodities in the trade balance that accounted for most of the previous resurgence of that trade have lost much of their effectiveness. The marked growth of the demand of the socialist countries for raw materials and foodstuffs (largely ensuing from the high materials requirement of the production profile), combined with the generally deteriorating conditions of production of raw materials in these countries, will increasingly limit their ability to export this kind of commodities. On the other hand, there are no signs at present that might conflict with the view that the demand for imports from the West, as generated by real investment demand of the socialist countries, will remain at a relatively low level at least until the mid-1980s. Given such an appraisal of the trends regarding the two principal components of the trade balance that accounted for the rapid growth pace of East-West trade during most of the present decade, the limited scope of changes in the commodity structure of trade is disturbing. Compared with the average for the years 1965-1968, the share of industrial goods other than chemicals (groups 6, 7, and 8, SITC) in the value of exports to the West by the European socialist countries in 1977 remained at the same level of 32 percent. Fragmentary available data indicate that this remains more or less the proportion to this very day. As regards trade in machinery and equipment, the corresponding index during that period increased by a mere one percent to the level of 8.1 percent. At the same time, the share of the above commodity groups in Western exports to the East European countries increased from 64 to 70 percent.[1] Given the stagnation of the relative position of chemicals and the decrease in half of the share of foodstuffs, the principal item responsible for a high volume of exports from the socialist to the capitalist countries during that period was fuels, whose proportion rose from 20 to 36 percent. Considering the current and predicted energy balance of the socialist countries, these exports can hardly be expected to continue in the long run on such a scale, even though they are readily marketed in the West, particularly since they are carried out only by certain of the socialist countries.

Given such an asymmetrical commodity structure, East-West trade has become highly susceptible to both market conditions and price movements. In the 1970s the fluctuations in the annual volume of exports by the West to the East ranged from -8 to +21 percent, and in the volume of exports by the East to the West, from -4 to +11 percent.[2] The price-level index for the entire East-West trade underwent even greater fluctuations, since changes of several score percent during successive annual periods have been the rule rather than the exception.

These changes took place against the background of the well-known fluctuations in market conditions and the attendant growth of protectionist moods and practices. Thus, in the past decade, in its operations on the markets of the developed Western countries, the economic apparatus of the socialist countries found itself particularly burdened by unexpected and often difficult situations while at the same time lacking in many cases the experience needed to skillfully navigate past new circumstances and counteract their negative effects. Improper responses rooted in the system of society also were made. They occurred especially on the side of the socialist partners, as ultimately reflected in low proneness to export. 'Major reproaches in this respect can also be addressed to the Western side.' On the whole, they boil down to the thesis that Western economic policies toward the socialist countries often include a simplified adaptation of the criteria of the market economy to the economic and system-of-society realities of the socialist partner. This is particularly explicit when the West attempts to protect its own market by protectionist measures. In view of the different nature of the socialist system of calculating costs and forming prices, the West quite often follows the practice of a mechanical comparison of the conditions of imports from the socialist countries with the models of the [free] market economy--models which, besides, frequently are selected in a demagogical and arbitrary manner.

Thus the development of East-West economic relations so far has not yet resulted in a sufficient stabilization of these relations from the standpoint of the longterm economic strategy of both parties. The periodic difficulties due to changing market conditions, the insufficient mutual adaptation of the partners, and the lack of harmony between their respective systems of society, etc. are judged in arbitrary terms and discourage interest in solutions that could prove to be advantageous to both parties only in the long run.

The existing structure has moreover been further aggravated by the foreign indebtedness of the socialist countries. Not only the scale but also the rapid increase in the rate of that indebtedness are important here. This is because, roughly speaking, two-thirds of the entire cumulative negative balance of trade with the developed West by the socialist countries recorded during 1960-1977 has been contracted during 1975-1977. This phenomenon took place on a scale not anticipated in the earlier period. It ensued both from price trends, which were generally unfavorable to imports by the socialist countries, and from the desire of these countries to maintain real imports as long as possible at the level ensuing from the investment and production tasks of their economic plans, despite the rises in the prices of these imports and the difficulties in selling commodities on the Western markets.

Thus there occurred an extensive exhaustion of the "traditional" sources of the momentum generating East-West trade during the past decade. Moreover, it is necessary to improve the conditions of payment underlying that trade despite its recent slowdown. In view of all this, new forms of mutual economic relations as well as further expansion of certain solutions adopted in recent years should be initiated and stabilized.

As regards the promotion of new forms of economic relations between Eastern and Western partners, the greatest progress has undoubtedly been achieved in the field of industrial cooperation. Relatively speaking, that is, so far as its scale is concerned. For in practice, the development of that cooperation proved to be less vigorous than had originally been expected by both parties, and the effects it produced have been much smaller than those envisaged in the original assumptions. The share of this form of economic cooperation in the overall volume of East-West trade remains at the level of 3-4 percent, although it is estimated at 10-15 percent as regards the exchange of industrial goods between both groups of partners.[3] In Poland, which has relatively the most ramified network of co-production relations with the West, compared with the other CEMA countries, cooperation accounts for barely 2 percent of the nation's trade with the developed capitalist countries.

The experience in this field gained in the last few years has sufficed, however, to both demonstrate the advantages of the cooperation as a factor of potentially great significance to East-West economic relations and reveal certain weaknesses which should be at least partially eliminated. The principal reservations voiced by the socialist partners concerning the practice of industrial cooperation are that the volume and prices of the products thus manufactured are unstable, on the Western markets. They regard it as a major obstacle that the industrialized capitalist countries do not extend customs privileges to these products. They also point to the frequent instances in which the Western partner reduces the prices paid to socialist suppliers with the object of achieving an excessively high profit margin on further sales of these products. The problem of technology selection is also mentioned. This is because the socialist countries usually are interested in acquiring the most up-to-date technological equipment, whereas the Western partners often prefer to transmit the more labor-consuming production processes. These factors add to the already high risks incumbent on the socialist partner. For in many cases the principal motive for the Western partner's interest in undertaking industrial cooperation is the unwillingness to invest his own resources in the expansion of his own productive capacities given an existing or anticipated marked downturn in the business cycle. The risk borne by the socialist partner is also compounded by the fact that the general production profile at the enterprise level is usually less diversified in comparison with the Western partner.

Certain reservations also are expressed by the Western participants in the cooperation. The principal motives prompting them to undertake co-production with socialist partners are, in this order: difference in production costs, a chance to develop new trade opportunities, the desire to avoid obligations in the form of commodity purchases ("buy back"), and the intent to broaden the scale of their output. Thus evaluations of cooperation are chiefly based on the degree to which these premises are translated into reality. The reproaches that are fairly often leveled concern delays in the investment cycle; irregular deliveries of co-produced products, particularly during the first stage of the development of their production by the socialist partner; and the quality of these products. It is pointed out that the technology transfers associated with such co-production projects are sometimes complicated by the practice, encountered in the socialist countries, of dividing research-and-development and production functions between different enterprises. Many critical comments have been made concerning the limited decisionmaking powers directly associated with industrial cooperation in these countries. Other reservations voiced by the Western participants include the view that the socialist partners are insufficiently flexible as regards the individualization of products and the introduction of on-the-spot changes in size of output. One of the most difficult problems is the question of the time frame of the purchasing pledges required from the Western participant in the cooperation agreement. Since such agreements concern chiefly investment goods, the West regards them as involving a major risk due to susceptibility to market fluctuations. For this reason the clauses obligating the Western partner to import the co-production products for a period of 5 or 10 years are usually regarded by that partner as particularly inconvenient.

Despite all these reservations, industrial cooperation will remain--at least for the next few years--the dominant form of production relations between East and West. A more advanced form of these relations, namely, the joint venture, still encounters major obstacles due to political differences as well as differences in administrative and legal practice. In view of the insignificant existing practical experience in the field of joint East-West capital investments on the territory of the socialist countries, the controversies concerning the joint ventures pertain largely to the postulated objectives of projects os this kind. The socialist partner views joint ventures as advantageous in the sense that they motivate the other side more strongly to agree to an effective transfer of technology as well as to a continuous updating of technology. Further, joint ventures offer possibilities for streamlining organization and management and produce hard currency profits due to both the capital investment itself by the Western partner, and the anticipated increase in exports. In assessing the existing model of joint ventures, the socialist countries point out that the Western partners do not adequately satisfy these expectations while at the same time striving to increase outlays over a period that is markedly shorter than the average within their own economies.

The Western enterpreneurs, on their part, chiefly voice complaints ensuing from the differences between the requirements of the model of joint ventures they prefer and the actual conditions of the socialist economy. Thus, to them the principal obstacles are the inconvertibility of the currencies of the socialist countries and the centralized planning of production and market. The Westerners also are critical of the requirement of majority share of the socialist partner in projects outside the sphere of small industry and services, in a situation in which--so the Western side opines--the interests of the socialist partner are adequately safeguarded through his ties to his own economic and legal system. Similar arguments have been repeatedly voiced against the practice of entrusting the management of a joint venture to the citizens of a given socialist country. The Western side justifies its disagreement as to the desired amount on the grounds that it interprets the concept of investments more broadly than do the socialist countries, by comprising in that concept not only direct capital outlays but also managerial and technical services, marketing, expenditures incurred on the transfer of productive capacities, etc. In addition, it is critical of the exclusion of the extractive industry and the principal processing industries from the list of branches in which joint ventures can potentially be started. Undertakings on a smaller scale are not, as a rule, of interest to large capitalist companies, whereas the small and medium sized Western enterprises are only in relatively few cases inclined (and financially and organizationally capable) to bear the risk associated with investing their resources in a relatively strange milieu, economy, and system of society.

Major controversies among the economic circles of East and West are aroused by the problem of transactions settled through goods deliveries (compensation agreements, self-payment, barter). Their share in the overall volume of foreign trade between both groups of countries can be only tentatively estimated, with most estimates specifying 20-38 percent, of which about two-thirds for Soviet foreign trade and roughly one-fourth for Polish.[4] The stimulating effect of such transactions on the state of East-West trade is generally not questioned, in view of the payment problems of the socialist countries. Nevertheless, the experience gained in that field reveals--from the standpoint of both sides--major shortcomings which seriously restrict the possibility of any longrange large-scale application of this form of economic relations. The barter of imports for commodities results in an increase in the prices of goods purchased by the socialist partner in the capitalist countries, at least in proportion to the Western company's cost of marketing the commodities it had acquired from the socialist partner by barter. Another disadvantage is the attendant weakening of the incentives for the socialist supplier to win and expand a position for his product on the Western market. Moreover, the Western party notes the limited scope of the commodities offered by the socialist countries in exchange for the goods supplied. In addition, such barter is complicated by the relatively rigid system for settlement of payments, in which imports and exports on the principles of barter concern, as a rule, the same economic organization of the socialist partner, even though commodities that could be supplied by another organization would be more attractive to the Western customer. So far as the Western side is concerned, deliveries of raw materials are of the greatest interest, relatively speaking, but their supply is limited both in scale and in the number of potential suppliers. As for more or less highly processed commodities, these are usually regarded by the Western customers as being more difficult to market and susceptible to protectionist measures on this home market.

As presented above, the differences in views and interests indicate that East-West economic relations have not so far taken sufficiently strong root. The original incentive for these relations, stemming from relative differences in availability of productive factors (i.e. in interbranch division of labor) is losing its importance with increase in the industrial and technological levels of the socialist countries along with an increase in their raw material problems. That incentive has not as yet been adequately transformed into a division of labor based on the intra-branch complementarity that increasingly characterizes economic relations within each of the groups of countries considered here. The institutional aspect of the East-West economic relations also has been insufficiently elaborated, particularly in the multilateral plane.

Despite these difficulties there exist no indications that the current slowdown in the dynamics of East-West economic relations presages their stagnation or even regression. It can be stated that such developments would be prevented both by the existing economic interdependence of the two partner groups and by the awareness that a return to isolationism would only compound the economic problems currently existing within these groups.

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PROCEDURES FOR REVIEW OF STOCKS OF MATERIALS NOTED

Warsaw GOSPODARKA MATERIALOWA in Polish No 2, 16-31 Jan 80 pp 37-38

[Article by T.W.: "Review of Stocks (April-May 1980)"]

[Text] In a resolution of the Council of Ministers approving the National Socioeconomic Plan for 1980 (Resolution No 184 dated 7 December 1979) it was established that the second nationwide review of stocks of materials would be conducted in April and May of 1980. The chairman of the Council of Ministers gave the order outlining the procedural framework and deadlines for conducting the review and calling together a special inter-ministry group under the chairmanship of the minister of materials management, whose task it is to organize and coordinate the review as it proceeds. The guidelines detailing the review should touch upon the manner of serving all enterprises and in thus the majority of readers of GOSPODARKA MATERIALOWA.

The importance of the problem and the significance of a well-conducted review cannot be overestimated. Those who hold various opinions concerning the perspectives of materials supply in 1980 nonetheless agree unequivocally that the balance of the economic plan for 1980 is based in part on utilizing some portion of the accumulated stocks of raw materials and other materials, on improving stocks management overall and on reducing the rate of their increases.

According to the preliminary data supplied by the Central Office of Statistics, in 1979 materials stock increased by 34.6 billion zlotys (i.e., 6.5 percent), with an increase in industry of 24.2 billion zlotys (i.e., 8.1 percent). Despite the incomplete fulfillment of the production plan, stocks increase underwent a growth rate which was nearly 3-fold that of the growth rate of production, as compared to its fulfillment in 1978. By 31 December 1979, the value of materials stock had already reached 564.3 billion zlotys, with a value of 323.4 billion zlotys in industry (excluding the food industry). The Narodowy Bank Polski [NBP--Polish National Bank] estimates that the value of superfluous stocks alone (together with those which are undisclosed) is 30-40 billion zlotys.

With such a large amount at stake, there is the real possibility of "recovering" raw materials and other materials for a value of at least 20 billion zlotys as a result of the review. These should be transferred physically as quickly as possible to enterprises which will make use of them in the second half of 1980.

The guidelines defining the principles for conducting the review are, in our opinion, sufficiently detailed and clear. There is no need for further comment on them. However, we would like to turn the attention of our readers to several problems which we think will decide the proper carrying out of the review as well as its results.

The success of the review depends above all on the objectivity and reliability of plant review commissions. It is very easy to frustrate the whole sense of the review, by making light of it and using only existing evidence or unverified opinions concerning the usefulness of a particular stock. To a certain degree, we are all infected with "hoarding" tendencies. The makeup of plant commissions, however, must be so composed as to minimalize these tendencies and to judge objectively both which supplies are unnecessary and the real causes of irregularities in stocks management.

The goal of the review, however, is not the disclosure of unneeded stocks, but their management. Thus, a fundamental task is making decisions concerning the utilization of the stocks discovered and implementing these decisions as soon as possible. We believe that the general economic views here should serve several purposes, among them limiting tendencies to sell excess material within the framework of the association or the ministry, although there of course may be situations in which this is justified. We are aware, however, of the degree to which we encumber transport with repeated transfers of materials. Let us then try above all to find transferees among enterprises located within the closest proximity, and especially among those enterprises of light industry which have serious difficulties with materials supply. Let us also try to ensure that materials of full value reach the proper units trading in materials, or that they are sold with the knowledge of these units. This enables the units to select the most appropriate directions of sale and to check orders which have been made. However, let us not bureaucratize these tasks, keeping in mind that their primary goal is to link up the material with the production process as quickly as possible, and that implementing this goal is more important than maintaining a definite procedure for putting unneeded stocks on the market.

As in the first review of stocks, sector units and organizations trading in materials have an extraordinarily important role to play. According to the guidelines, they are to react to every announcement within 30 days, an abbreviated period in comparison with the normal period of obligation. This necessitates that the units prepare corresponding methods of operation to guarantee that they meet the deadline, that they provide the firms that have submitted the stocks with a concrete answer, and, most importantly, that they execute a direct purchase or supervise the course of the sale in transit.

We may expect that a significant number of notifications of stocks of unsaleable or defective materials also will reach the offices of BOMIS (The Machinery and Raw Materials Turnover Agency). Unfortunately, this organization does not have a computerized system enabling the rapid flow of information between offices, making it more difficult to locate transferees of unsaleable materials. Thus it is also understood that this organization has somewhat more time--50 days--to give their reply to notifications of stocks put up for purchase. We are of the opinion that BOMIS will initiate a special system for rendering its services for the period of the review.

One of the desirable directions for sales of unneeded stocks of materials which are of no use to socialized enterprises is their sale to trades. Let us recall that the binding regulations (Resolution of the Council of Ministers No 164 dated 6 August 1971, the same text appearing in MONITOR POLSKI No 4, 28 February 1979) permit the sale of this type of material to trades, or to organizations supplying trades, directly by socialized enterprises (those in possession of the stocks). If there are any difficulties in this area, the intervention of BOMIS may be sought. In any event, it must be remembered that the sale of unneeded stocks to trades is an economically feasible direction, that in this way they are most often transformed into sought-after market articles, of which trades are an important producer.

We are convinced that the second review of stocks will produce important results, moving materials that are lying useless in warehouses and are necessary to the economy. The editorship of GOSPODARKA MATERIALOWA will also publish information about the review as it proceeds, as well as information about its total results.

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POLAND

CONSTRUCTION PLAN FOR 1980 OUTLINED

Warsaw INWESTYCJE I BUDOWNICTWO in Polish No 3, Mar 80 pp 1-5

[Article by Wladyslaw Siwek: "1980 Plan of the Ministry of Construction and Building Materials Industry"]

[Text] The fulfillment of the targets for 1980 as the last year of the current Five-Year Plan period is largely decisive to the fulfillment of many tasks of the 1976-1980 Plan. The special role played by 1980 in this respect ensues from the exceptional difficulties that had accompanied the fulfillment of the 1979 plan in this country. Major disturbances in the functioning of nearly the entire economy, and especially of transport, during the last winter had decisively--as it turned out later--affected the construction activities. In addition to the difficulties directly caused by the sharp frosts, snowstorms, and transport delays, the construction industry had to dispatch for a couple of weeks several thousand workers and a quantity of equipment and vehicles for snow removal work in cities and on roads. This resulted in a loss of construction production reaching the equivalent of one month of operations. Additional difficulties, moreover, arose during the second quarter of the year owing to the flood disasters occurring in many areas. The production losses due to the hard winter and the floods as well as to subsequent intermittent fuel and power problems also affected the building materials industry, and especially the cement industry. As a result of all this, many of the parts of the 1980 Plan had to postulate repairing at least some of the omissions of 1979 in order to assure complete fulfillment of the tasks of the Five-Year Plan.

The total sum of investment outlays in the national economy in 1980 will be 600 billion zlotys (against about 653 billion in 1973).[1] This means a further decrease in the share of investments in the disposable national income, namely, to 17-18 percent. The share of consumption in national income will increase from 74.3 percent in 1979 to 76.5 percent in 1980. Out of the total sum of investment outlays, 337.5 billion zlotys (95.7 percent of the actual outlays in 1979) is allotted for construction and installation operations in the economy as a whole; of this amount, 288.9 billion zlotys (96.2 percent of the actual outlays in 1979) is allotted for the socialized sector. The basic premises of the investment policy in 1980 include the limitation of the investment front, the concentration of outlays on projects to be completed this year, and refusal, in principle, to undertake new investment projects (other than co-partner projects).

The value of the whole of the construction and installation operations planned for 1980 in the national economy--both investment and non-investment--is 514 billion zlotys, of which most--about 464 billion zlotys--will be performed by socialized-sector contractors, including about 342.4 billion zlotys of operations by construction and installation enterprises.

In 1980, in the national economy as a whole, projects with an aggregate cost-estimate value of more than 550 billion zlotys will be released for occupancy or use. They will include: 1) 346,000 dwelling units, of which 137,400 dwelling units for the non-agricultural population, to be provided by the socialized housing construction industry, with an aggregate dwelling area of 12.3 million sq m; 2) approximately 13,000 beds in hospitals and hospital annexes; 3) approximately 400,000 sq m of area in service establishments and stores, including 305,000-315,000 sq m in housing communities; 4) many important industrial facilities with a combined cost-estimate value of about 200 billion zlotys, including 1,620 MW in new power generating capacity (inclusive of the first 360-MW boiler-turbine unit at the Fuel and Power Combine in Belchatow), the first sections of the Pulp and Paper Plant in Kwidzyn, two large antifriction bearings plants (in Gdansk and in Sosnowiec), a modern container base in the Port of Gdynia, and chlorine and polyvinyl chloride shops in the Wloclawek Nitrogen Plant.

The Ministry of the Construction and Building Materials Industry will implement in 1980 169.2 billion zlotys of construction and installation operations (compared with 174.4 billion zlotys--in comparable prices--in 1979). The share of the Ministry of Construction in the implementation of construction and installation operations in this country will be 49.4 percent (allowing for the transfer last year of the Association of Power Station and Industrial Plant Building Enterprises to the Ministry of Energy and Atomic Power). Thus the amount of the Ministry's output will be, in comparable prices, about 97 percent of its fulfillment in 1979. In addition to basic production, the Ministry's construction and installation enterprises will implement in 1980 auxiliary production and services worth 95.4 billion zlotys (compared with 92.0 billion in 1979). The actual scope of implementation of investment projects points to a continuing increase in the share of housing construction and general construction and a decrease in the share of industrial and special-purpose construction. The resources allocated for housing construction amount to 87 billion zlotys or more than one-half of all available production capacity at the Ministry.

Overall employment in the Ministry's construction and installation enterprises in 1980 will be 498,600 persons (compared with 534,800 in 1979), and hence this year it will be on the whole reduced by 36,200 persons compared with the previous year. In reality, compared with the state of employment as of 30 November 1979, employment in the "Construction" Section will be about 50,000 persons less. Employment in construction exports will be about 28,300 persons (compared with 27,500 in 1979). Overall labor productivity at construction and installation enterprises will increase by 6.4 percent, and the average wage, by 3.7 percent, above the previous year.

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The actual tasks of the Ministry in housing construction reach 11,141,000 sq m of dwelling area, i.e. 283,000 sq m more than had been planned for 1979 (an increase of 2.6 percent). Incomplete statistics (as yet) for 1979 indicate that the housing construction plan for that year will have been fulfilled by about 10,767,000 sq m, i.e. 15.2 percent more than in 1978, inclusive of 1,550,000 sq m of dwelling area allotted to labor establishments for their own conduct of finishing operations. In 34 voivodships the plan has been either fulfilled or overfulfilled, while in 15 voivodships it has been to some extent underfulfilled. The situation in this respect has been particularly difficult in major urban centers--in Silesia, Warsaw, Gdansk. Considering that the planned 1979 housing construction targets for the Ministry had been about 1,510,000 sq m or 16.1 percent higher than in 1978, the Ministry's contribution to the implementation of housing construction under the abovementioned difficult conditions deserves special mention.

The growth rate of housing construction in 1980 (103.5 of the plan fulfillment in the previous year) would not be difficult to achieve were it not for the occasionally marked differences in the geographical distribution of the growth in that construction. Thus, e.g. in Silesia the increase in the actual scope of housing construction--from 1,975,000 sq m in 1979 to 2,600,000 sq m in 1980--will be about 32 percent. Considering that in the pevious 2 years housing construction in that region had already increased by nearly 70 percent, the 1980 plan is particularly difficult. One-half of that planned increase in Silesia will be carried out with the resources of the enterprises located in the Katowice Voivodship, i.e. chiefly of the Silesian urban construction enterprises, as well as, to a greater extent, by local industrial and special construction enterprises. The other half of the increased plan for housing construction will be handled by enterprises outside the Katowice Voivodship--nearly from all the general construction associations, a part of which had already contributed to construction in Silesia in the previous year. Altogether, these enterprises will be charged with building 680,000 sq m of usable dwelling floor space in Silesia.

To increase the effectiveness of the aid provided by industrial construction enterprises in implementing housing construction, this year a new form of that assistance is being introduced: the Ministry will transfer 9-10 entire large industrial construction enterprises to general construction associations for the performance of housing construction tasks. Altogether, this year industrial construction enterprises will build 716,000 sq m of usable floor space for dwelling units (compared with 420,000 sq m in 1979), and in Silesia they will moreover handle the land development (foundations, basements) for one million sq m of dwelling area.

In addition to the problems inherent in the marked increase in tasks within certain voivodships, major difficulties in housing construction will be caused by considerable delays in the transfer of construction areas and documentation from the investors to the contractors. The general construction association received in time (deadline 31 December 1979) construction areas and documentation for only about 65 percent of the volume of housing construction planned for this year. Land development continues to make unsatisfactory progress, so that in many cases installation and land development operations will have to be conducted simultaneously, thus complicating a correct operations scheduling.

The year 1980 will be another year of special concern for improvements in the quality of housing construction. This is a task not only for the contractors but also--and sometimes above all--for the producers of building materials and products, both among plants of the building materials industry and among other producers in the housing industry. Positive results have already been produced as regards improving the quality of certain types of wallpapers, flooring materials, ceramic tile, fiberglas-based tarboard, new kinds of construction hardware, modern heat exchangers for the installation of warm water and central heating, etc. In practice, supervision of the observance of quality standards is needed. Soon MONITOR POLSKI will publish an ordinance by the Minister of the Construction and Building Materials Industry regulating the criteria and principles for evaluating the quality of construction operations and structures. In 1980 the scope of implementation of the so-called model buildings will be extended to 1,500 structures, compared with 542 in 1979. A new pay scale and bonus system for foremen, along with a new pay scale for workers, previously prevailing in Warsaw and the Katowice Voivodship, will be extended throughout the country with the object of assuring privileged treatment for foremen and workers responsible for the quality of construction.

Another--in addition to housing construction--socially important task of the Ministry is hospital construction. In 1979 the related plan targets were overfulfilled: instead of the planned 3,654 so-called hospital beds, 4,965 beds (136 percent of the plan) were released for occupancy. In addition, facilities with a total of 2,100 beds were also put to use. In 1980, for the nation as a whole, about 13,000 beds in hospitals and hospital annexes are to be released for occupancy. The tasks of the Ministry of Construction in this respect will be double those of the previous year.

As regards auxiliary services connected with housing construction, the Ministry will this year build 265,000 sq m of commercial and service-establishment floor space (the 1979 plan, fixed at 312,000 sq m, was fulfilled only to the extent of 273,000 sq m). Being fully aware of the backlog as regards this type of construction, the Ministry is taking steps to further streamline the production technology of lightweight structural elements and the installation and finishing operations in trading establishments.

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The Ministry's tasks as regards industrial construction provide for the completion in 1980 of 150 central-plan investment projects, including 24 projects of special importance to the national economy that have a combined cost-estimate value of 75.2 billion zlotys, along with 108 territorial-plan projects. Last year, of the planned 269 principal industrial construction projects, including 41 projects of special importance to the national economy that have a cost-estimate value of 81.5 billion zlotys, the Ministry released for use or for production flowline startup 196 projects, including 34 projects of special importance having a combined value of 58.3 billion zlotys. In addition, within the framework of the Ministry's annual plan, 229 investment projects, including 79 territorial-plan projects, were transmitted for use. Thus, altogether the industrial and special construction association released for use or for startup 425 investment projects. Of the projects completed that were of special importance to the national economy, some have been completed ahead of schedule (e.g. the second shaft furnace at the Zinc Plant in Miasteczko Slaskie, and the production stage of the Television Subassembly Plant in Bialystok. All the investment projects for the food industry have been carried out.

This year the industrial and special construction associations have to fulfill an output plan that is 12 percent smaller than in 1979, which will necessitate reducing employment by nearly 40,000 persons. On many construction sites the shortage of funds among investors will cause the stoppage of operations commenced in previous years, after they are properly secured. Even though the Ministry of Power Industry took over last year control of power construction enterprises, industrial construction associations will continue to cooperate in power plant construction, on committing for that purpose productive resources worth nearly 4 billion zlotys.

The restrictions of the volume of industrial construction will, as noted previously, cause the concerned enterprises to shift more of their productive capacity in the direction of housing and general construction--among other things, for operations relating to land development. The aggregate potential of the Ministry's enterprises handling land development operations will increase from some 21.8 billion zlotys in 1979 to about 23 billion in 1980. Part of the declining capacity of the industrial construction enterprises will be allotted to the growing and flourishing exports of construction. This year, through the mediation of the "Budimpex" Foreign Trade Center for Construction, the Ministry will carry out about 330 contracts in 17 countries. The capacities of the special construction enterprises will also be partially utilized in the implementation of modernization projects.

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In the building materials industry the sales volume of products and services will amount to 118.3 billion zlotys in 1980 (compared with 112.5 billion in 1979--in terms of 1980 plan prices), which means a 5.2 percent increase in sales. The planned volume of output of the building materials industry corresponds to the real possibilities for supplying that industry with raw and other materials as well as fuel, and also to the transport possibilities (vehicular and rail transport and inland waterways). For the glass and ceramics industries--in view of the great demand for their products both in this country and abroad--the plans for output and sales were so established as to maximally exploit the existing productive capacities.

The output of the principal building materials will be: cement, 21,850,000 tons (growth rate of 110.6 compared with 1979); wall materials, 8,800 million ceramic units (growth rate 112.1); concrete products, 9,000,000 cu m (growth rate 130.0); mineral wool, 120,000 tons (growth rate 120.0). In view of the declining scale of investments and construction and installation operations in 1980, further changes will take place in the sales structure of products of the building materials industry.

The share of deliveries for investment and supply purposes will diminish to 71.1 percent of total sales (compared with 73.8 percent in 1979), while the share of deliveries to the market will increase to 21.5 percent (from 20.0 percent in 1979), and the share of deliveries for exports will increase to 7.4 percent (from 6.2 percent in 1979). In terms of retail prices the value of deliveries to the market by domestic industry will increase by 11.7 percent compared with 1979 (on the national scale the deliveries of non-food commodities to the market will increase by 5.4 percent). In the group of basic market materials comprised in the so-called List No 1, the deliveries will be (the parentheses show increase compared with 1979): cement, 6,400,000 tons (33.3 percent); construction lime, 640,000 tons (12.6 percent); ceramic roofing tile, 16 million units (8.0 percent); wall materials, 5,450 million ceramic units (17.8 percent); roofing board, 92 million sq m (40.9 percent); window glass, 19 million sq m (8.6 percent); ceramic wall tile, 1,400,000 sq m (5.9 percent); lime fertilizers, 770,000 tons (39.0 percent); porcelain tableware, 2,120 million zlotys (0.2 percent); glass tableware, 3,700 million zlotys (14.8 percent); crystalware, 2,170 million zlotys (0.4 percent).

The value of export deliveries will increase to 1,312.5 million foreign-exchange zlotys, or by 22 percent compared with 1979. More specifically, exports to countries of the first payment area ["socialist" countries] will increase 8 percent; and to countries in the second payment area ["capitalist"], 36.3 percent. Products of the electrical machinery industry will account for more than 50 percent of the value of the exports, and products of non-investment nature will account for the remainder. The value of imports will be 1,026.6 million of foreign-exchange zlotys (3.6 percent increase, owing to the increase in non-investment imports). The positive balance of trade with the abroad will be about 286 million foreign-exchange zlotys, of which more than 344 million will derive from trade with countries in the second area of payments. The positive balance of trade of construction will reach 391-411 million foreign-exchange zlotys and will thus be 77-97 million higher than it was in 1979.

Total employment in the building materials industry in 1980 will be 272,600 persons (compared with 276,400 persons in 1979), that is, it will be 1.4 percent smaller than in the pevious year. In view of the need to man 4,000 work posts in newly opened plants, the actual cutbacks in employment in the existing plants will reach 7,800 persons. Overall labor productivity is to increase 6.6 percent (or, on the scale of the nation's industry as a whole, 4.4 percent), and average wage is to increase 4.0 percent.

As regards natural conservation, plans exist for the reclamation of depleted excavations measuring altogether 1,200 hectares in area (1,000 hectares in 1979). Special resources will be allotted for this purpose.

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As regards material supplies, the 1980 plan provides for a smaller consumption of many materials than in the previous year. Thus, of the centrally allocated materials, only 92.4 percent as much cement as in 1979 will be used; only 95.2 percent rolled metal products; 95.3 percent of coniferous lunber; and 96.5 percent of power cable. These reductions in consumption will be achieved both through restrictions on the scope of construction and installation operations and through reductions in the material intensiveness of construction as well as through combatting the waste of materials. Further steps will be taken to streamline the turnover of materials by, among other things, centralizing the allocation and supervision of deliveries, increasing the inventories of the building materials bases, and broadening the dispatcher subsystem, previously applied on these bases as regards the associations of construction and building materials industry.

As regards the management of construction machinery and vehicles, the anticipated lower allocations this year (e.g. 1,200 heavy construction machines compared with 1,658 in 1979; and 32,500 tons in vehicle transport capacity compared with 36,300 tons in 1979) will result in stressing improvements in the repair and maintenance of the machinery and vehicle pools, especially as regards major overhauls. The Ministry's own production of spare parts and recycling of tires and inner tubes will be expanded. The Ministry's transport needs, estimated at about 800 million tons, will be chiefly--to the extent of 65 percent--satisfied with its own subbranch transport facilities. Agreements with the PKP [Polish State Railroads] provide for the rail transportation of 65 million tons of freight.

Altogether, in-house investment projects at the Ministry will total 13,350 million zlotys in 1980 (compared with about 26,200 million in 1979). Of these, modernization investments will account for a total of 2,500 million zlotys (comapred with 4,500 million last year). The cost-estimate value of the projects released for operation this year will be about 13,490 million zlotys (compared with 15,870 million last year). This year's investment outlays will be chiefly spent on completing the investment projects scheduled for completion in 1980 and on continuing co-partnership investment projects. This concerns in particular the investments in: the glass and ceramics industries, which serve to satisfy market and export needs; insulating materials industry--associated with improvements in the heat insulation of buildings; the concrete aggregates industry, to compensate for shortages of aggregates in certain regions; the binding materials industry, to modernize the plants. The construction of 9 house-construction factories commenced in previous years (at Glogow, Gorzow Wielkopolski, Jaslo, Kalisz, Przemysl, Suwalki, Walbrzych, Wloclawek, Zielona Gora), will be completed.

As regards the development of science and technology, the Ministry's scientific research laboratories will continue their program of action during the 1976-1980 period, especially the work relating to the Government Program PR-5, "Comprehensive Development of Housing Construction." Plans exist to complete this year a number of research projects that are of fundamental importance to the further development and streamlining of housing, industrial, civic, and communal construction as well as of the building materials industry.

As regards economic progress, measures to increase management efficiency will be expanded; this should be reflected in improved management of manpower resources, improved utilization of the operating time of machinery, equipment, and transport facilities, increased quality level of construction and industrial production, and reduced prime costs and extra costs. An improved organization of labor and management, such as to reduce the waste of working time and increase labor productivity and the degree of utilization of productive capacities, will be introduced. Principles for determining material targets in conjunction with the limitations on the consumption of materials as based on technological consumption standards will be introduced. The wage fund relating to buildings and structures will be adjusted to the standards for the labor intensiveness of various operations. Work to centralize the turnover of materials and the control of inventories with allowance for active supplying of construction sites will be continued.

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Unlike the plans for certain previous years, this year's plan of the Ministry of Construction and Building Materials Industry is characterized by a more realistic adjustment of plan tasks to production possibilities. The planned growth rate of output at the Ministry's building materials industry (105.2) should, given the planned decrease in construction and installation operations to 97.0 percent of their actual 1979 level, contribute to a marked elimination of materials shortages, at least as regards the materials produced within the Ministry itself--on condition, of course, that transport performance improves markedly, particularly as regards the railroads. In addition, auxiliary production and services at construction and installation enterprises are expected to increase 3.7 percent, which should help satisfy construction needs.

Allowing for the experience gained in recent years, improved results should be expected upon channeling the extra capacities of the industrial construction enterprises into the implementation of housing construction. This is so because this will not be a question of some "assistance," as has been repeatedly stated, but a question of the fulfillment of tasks in the enterprise's own name and account. This will be possible thanks to the aforementioned transfer of 9-10 enterprises from industrial construction associations to general construction sector, although the full effects of that decision will make themselves felt only next year, since the enterprises concerned must first complete the projects scheduled for release in 1980.

It will be a difficult problem to implement the much greater--compared with previous years--scope of hospital construction. The low completion rate of the pertinent projects during the first 3 years of the Five-Year Period--a rate that was low even though the Ministry of Construction had more than overfulfilled its material target of 4,413 hospital beds for that period--confronted the Ministry with the need to release this year for use about as many hospital beds as had been completed in all of the preceding 4 years taken together.

Then also the planned 1980 volume of the construction [of shopping facilities] accompanying housing construction is alarming. The fact that the pertinent targets set for the Ministry in 1980 have been reduced is not a good portent of the possibility of fulfilling these targets. It is worth noting in this connection that the 1980 plan provides for the construction of about 50,000 sq m of the pertinent floor space in housing communities by undefined and hence also perhaps unsecured contractors, whereas the public needs in this are much greater, particularly in the newer communities, while at the same time the backlog of this kind of construction is increasing.

A comparison of the magnitude of investment outlays on the national economy as a whole in the last 3 years (710.8 billion zlotys in 1978; 653.3 billion in 1979; 600 billion in 1980) with the disproportionately smaller outlays on investment projects within the Ministry of Construction (40.4, 26.2, and 13.3 billion zlotys, respectively) may raise grave fears as regards the assurance of proper conditions for the development of the productive capacities of construction and building materials industry in the next Five-Year Plan period. The outlays allocated to the Ministry in 1980 not only are inadequate for implementing certain urgent investment projects (e.g. expanding the facilities for the production of lime and limestone for agriculture, metallurgy, sugar industry, and chemical industry; of basalt, for the needs of mineral wool production; of wall ceramic materials; of prefabricated elements made from the ashes of thermal power plants), but also may prove inadequate for completing certain investment projects scheduled for completion this year.

As regards the development of science and technology, emphasis should be placed not only on expediting the Program PR-5, "Comprehensive Development of Housing Construction," but also on the fullest possible practical application of the already completed research projects. In both cases this applies particularly to projects intended to reduce the material requirements of construction and the labor requirements of construction operations as well as to shorten the investment cycles.

Steps taken to enhance the efficiency of management in construction will in many cases be necessitated by external circumstances (such as the streamlining of the management of machinery and means of transport through restrictions on this year's allocations of new equipment units and vehicles), which should make these steps more effective. Even so, however, the maintenance of complete discipline and consistency as well as universality of measures taken in this field will greatly affect the implementation of such tasks as the planned increase in labor productivity, raising of the quality level of construction and industrial production, and reduction of operating costs.

FOOTNOTES

1. Most of the statistics for 1979 are based on anticipated or preliminary fulfillment.

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POLAND

PLANNED MATERIALS PROCUREMENT AS AID IN MATERIALS USE DESCRIBED

Warsaw GOSPODARKA MATERIALOWA in Polish No 2, 16-31 Jan 80 pp 41-45

[Article by Czeslaw Nowak: "Planned Materials Procurement as an Instrument for Intensifying Materials Use"]

[Text] In order for the planned materials procurement to be an effective instrument of the intensified use of materials, not only those sources of data which relate to the planned volume of production and the consumption of materials per production unit calculated for a given period must be taken into account. The potential reserves in materials outlays, the use of which may have a definite effect on the volume of material needs, must also be considered in the process of planning materials procurement. Thanks to this it is possible to be more specific in defining goals and tasks in the field of the rational use of materials, and, at the same time, through planning and making changes in materials outlays, we can actively affect the creation of materials balances by limiting demand as well.

Reducing Materials Consumption as a Source of Reserves

Decreasing materials consumption is a fundamental source of freeing reserves in the material economy. This results from the fact that materials consumption in production in several fields of the processing industry is two-fold, and in certain cases even three-fold that of the highly developed countries of Europe and the U.S.[1] In the recent period it even increased. In the years 1975-1978, with an increase in total production in the socialized economy of 45.2 percent, the cost of materials increased 46.2 percent.[2]

In 1975, the share of raw materials and other materials in the value of industrial production was 65.1 percent, in 1978 this rose to 67.1 percent. The share of materials costs in the structure of construction costs was 44.4 percent in 1976, and rose to 46.8 percent in 1977.

There are many causes of such a high rise in materials consumption.

Uneconomical management is one of the causes of high materials consumption. Inspections carried out by the Supreme Chamber of Control showed that in many enterprises norms for the consumption of basic materials are lacking, that the role of technically justified norms is too low. Norms are not put into effect. At the time of the nationwide reviews of norms in 1977-1978, analyses of norms representing only a small part of the general consumption of materials were submitted. Studies done by the Narodowy Bank Polski [NBP--Polish National Bank] showed that in construction there was consumption exceeding the norm of such mass materials as cement (30 percent) and reinforcing steel (22 percent).[3]

Despite the severe shortage of glass it appears that in our construction industry approximately 40 percent of all window panes are destroyed in various phases of transit, during the assembly of parts, or at the construction site itself.[4]

By using casting in place of machining, it is possible to save over 35 percent of our steel and 50 percent of human labor. In Poland a million tons of steel becomes chips as a result of machining. The share of machine tools for moulding in production is 10.8 percent (6 years ago it was 12.1 percent), which is approximately 2.5 times lower than the global average. In Western Europe, the U.S. or Japan, the share of machine tools for chipless production engineering is approximately 3-fold higher than in Poland.[5] The average output (i.e., the weight ratio of the finished product to the stock) of steel on the national scale is 86.5 percent, and in the production of machine parts often it does not exceed 10 percent.

If, in the production of machine parts, the output were increased by 1 percent by the reduction of the number of chips, this would enable us to save 111,000 tons of steel, approximately 90 million kilowatt-hours of electrical power yearly, the labor of 8,200 laborers and 4,340 machine tools.[6]

Another example of reserves of this type is the insufficient application of material-conserving techniques of painting, such as: airless sprays, electrostatic sprays, electrophoretic sprays and the like, in the face of a severe shortage of paints and varnishes.

The present increase of materials-consumption in construction is also caused primarily by the implementation of material-intensive technology in production (the WK-70 and W-70 systems in place of the material-conserving OWT-67 system).

An example of the insufficient use of the possibilities for reducing materials-consumption is provided by the matter of the application of a Polish method for forging crankshafts developed by Professor Tadeusz Rut. This method cuts the consumption of materials in half, and cuts costs by 40 percent, at the same time improving the resistance of the forging. On the basis of licenses purchased in Poland, this method is widely used in Western countries, in Japan, Yugoslavia and the GDR. However, we are not able to use it on a broader scale. The main cause of this is our system of evaluating production. The Batory steel mill, which applied this method had problems with the execution of its tonnage plan, although it produced twice the number of crankshafts. The obligatory system of evaluation based on an evaluation of tasks according to weight meant that this method, being too efficient, had a negative effect on workers' earnings. As a result, we import these crankshafts from Japan, where they are produced under a Polish license.[7]

Replacing the system for calculating and evaluating steel production according to tons that has been used up to the present with a system that takes into consideration a calculation and evaluation based on the unit weight and the length or the surface area of the product, i.e., based on a so-called measures in theoretical or utilitarian tons, would bring gains represented by an annual estimated savings of 1.2 million tons of steel.[8] The present system of calculations gives preferential treatment to production, and consequentially gives priority treatment to deliveries to users of steel with larger dimensions (e.g., thicker metal plates, bar steel) than required by consumers, and freezes steel with plus tolerances. Another example of this type is production of glass for the construction industry of greater thickness (4-millimeter panes instead of 2-millimeter panes) as a consequence of the evaluation of glass-mill production according to a weight index, and not a use index.

Improved Adaptation of the Range of Procurement Products to the Needs of Consumers

One of the fundamental conditions for maintaining a balance between material needs and serving these needs is adapting the range of production to the requirements of consumers. What this means in concrete terms is that the range of production of materials should correspond to the needs of those who are to use them.

When this condition is not met, the material needs of consumers are not served despite the execution of planned tasks by manufacturers.

A primary cause of this is the granting of priority treatment to products which enable the easier fulfillment of the production plan in weight categories. This limits production and deliveries in assortments which issue from the more difficult planned tasks in terms of their execution. As a result of the dependence of the production structure on the range of deliveries, this phenomenon may cause greater and greater commotion in meeting material needs.

The next cause of the non-implementation of deliveries in assortments corresponding to orders is the insufficient competence of units of marketing and turnover of means of production in the field of adapting the assortment of production to the real needs of consumers. The marketing unit is the agent for the production executed by the industry to which it belongs. In this way it is interested above all in implementing tasks of marketing the articles of its industry, and is held accountable for this. The obligation of adapting supply to the needs of other sectors and ministries is treated as a secondary one. Evaluating this problem, Professor Jerzy Kwejt recently pointed out: "Although marketing agencies in sector associations should act to coordinate production programs of these sectors with the specified or discernible needs of consumers, in practice their effect is often limited in favor of the convenience of, or greater usefulness to production. Under such conditions, consumers find themselves in a more unfortunate situation with regard to marketing agencies, often petitioners forced to submit to the conditions which have been imposed."[9]

Thus, in practice the consumer is forced to take such products as industry offers, e.g., window glass 4-millimeters thick rather than 2-millimeters thick, thicker wire rods, metal plates and bar steel.

As a consequence of this we have:

--an increase in the materials-consumption of production,

--a disruption of the balance on the procurement market, resulting from the greater-than-planned consumption of raw materials (.e.g., glass, steel) with the lesser-than-planned satisfaction of the needs of consumers,

--the incomplete execution of production tasks by consumers as a result of the incomplete fulfillment of their needs and the further increase of difficulties in procurement and on the consumer market.

In consequence of this, as a result of the lack of adaptation of the range of deliveries of procurement articles to the needs of consumers, there follows the disruption of sector balance, and then the total balance on the procurement market, despite the fact that in the central plan the needs and deliveries of materials represented in categories of aggregate groups of products were equalized.

Rationalizing the Management of Stocks

The proper formation of the volume and structure of material stocks is one of the most important factors ensuring the stability of materials procurement. Serious problems have arisen in this area in recent years.

Information from the Office of Materials Management shows that shortages of several assortments of raw materials and other materials from 1977-1978 helped to cause a change in the rate of increase and the structure of stocks on the scale of the socialized economy. Together with a reduction in the rate of increase of stocks in comparison with 1976, their structure also worsened in 1977 and in 1978, as a consequence of which they did not guarantee the completely rhythmical functioning of production processes. Despite the shortages that occurred, the national economy at that time was seriously hampered by unsuitable stocks. On the one hand, the inability to serve current production needs had repercussions on the continuity of production and on the execution of plans, and on the other hand (besides other causes, such as changes in the investments program, poor management in enterprises and the like, among others) excess and unneeded stocks arose in many units. This situation was made more serious by the unfavorable changes in the distribution of material stocks observed in the years 1977-1978. The tendency to hoard stocks, observed chiefly among consignees, i.e., in industrial and construction enterprises, continued, with the simultaneous decrease of stocks in units of the procurement trade. The phenomenon of the fall of stocks in this trade limited the disposability of stocks decisively and sharpened difficulties in serving the current production needs of industry and construction.[10]

The factors which have the greatest influence on the formation of unsuitable stocks are undoubtedly:

--a too lengthy advance period in the placing of orders for materials by consignees,

--"deficit psychosis," often causing large overestimations of amounts in consignees' orders for materials (there are even cases of overestimations that are ten-fold the amount needed).

The elimination or at least the limitation of the effect of the above-mentioned causes of irregularities in management depends to a great extent on the organization of procurement turnover. The heart of the matter here is the implementation of the requirement of the responsibility of the marketing organizations of suppliers and enterprises of wholesale materials trade for discerning and evaluating the needs of consumers. These organizations cannot limit themselves to setting up volumes of demand based on a comparison of the volume of consumers' needs, eventually revising their data by mechanically reducing these needs; to a greater and greater extent they must base their evaluation of the volume of consumers' needs on their analysis of the demand for materials distributed, an analysis which they must verify periodically.

For units of the marketing and trade of materials, these analyses should make their analysis and periodic verification of the demand for materials distributed the basis for evaluating the needs of consumers...simply an instrument of the planning and operative activity of units of materials turnover. [as published]

Objectivizing the Volume and Structure of Material Needs

A universal irregularity occurring in materials management is the planning of demand for materials in amounts other than that resulting from actual, legitimate needs of consumers. Consumers count on the fact that under conditions of the sale of materials not keeping pace with a rapid increase in production and its needs, their demands will be reduced (and are reduced within the framework of balancing practices and the establishment of allocations). As a result of these two opposing influences on the volume of allocations, overestimation on the one hand and reduction on the other, the relationship of real allocations to needs takes shape among individual consumers in various ways. For some, their real demands are not met, others have excess stocks of allotted articles in the face of a general shortage of them.

The elimination and liquidation of the above-discussed irregularities can take place only when consumption, stocks and material demands will be determined in an objectively justified volume and structure for goals of planning, balancing and evaluating the implementation of tasks.

Resolution No 13 dated 27 January 1978, undertaken by the Council of Ministers, which concerns the development and perfecting of a normative and informational base with reference to the management of fuels, energy, raw materials and other materials, serves this end. It obliges ministers to develop and perfect a normative and informational base for materials management.

According to the normative base regarding the consumption of fuels, energy, raw materials and other materials (hereafter referred to as materials) current information concerning the unit and collective consumption of materials in the production of industrial products and in the execution of construction and services is to be gathered.

The normative base regarding stocks is to include the norms of stocks established in a manner suitable for the planning and effective control of stocks at particular levels of management. For enterprises, these will be the established and current plant norms of stocks, for higher units--collective norms, and for balancing units--macroeconomic norms serving the needs of the entire socialized economy.

The normative base is to include information on events that relate to materials management, to serve in the evaluation of economic occurrences, which evaluation is essential for the needs of management of the material economy. This base is to encompass the appropriate informational content on the subjects of materials consumption, materials stocks, the state of turnover in [the area of] means of production and information relative to the state of the material economy.

Both the normative and the informational bases are to serve in the perfection of planning and management at all organizational levels.

Increasing Discipline in the Execution of Balances and Agreements of the Sale and Delivery of Materials

Serious disruptions in the implementation of materials procurement are cause by:

--frequent cases of the abandonment or limitation by suppliers of the production of materials, with substantial consequences to their users,

--the lack of adherence by manufacturers to the conditions agreed upon with regard to the amounts produced, the assortment, the quality and the delivery dates of materials produced.

To safeguard against the occurrence of the above irregularities, special decisions contained in circular No 22 of the Chairman of the Council of Ministers, dated 6 March 1978, were introduced concerning increasing discipline in the implementation of agreements of the sale and delivery of products.

In accordance with the decisions of this circular, ministers and directors of central offices have the duty to ensure:

--that the duty issuing from agreements concluded with consignees of manufacturing products in established assortments and amounts with dates of delivery and suitable quality also guaranteed be allowed for in operational plans,

--that the results of the evaluation of production activity of enterprises be contingent upon the implementation of concluded agreements, particularly with regard to the assortment of products and delivery dates, and that the amounts of bonuses in enterprises be contingent upon the proper implementation of agreements concerning deliveries of manufactured products (by introducing a system of awarding bonuses for competent decisions into the regulations),

--that the taking advantage of the authority to reduce the amount fo contractual penalties projected in section 69 point 1 of the resolution of the Council of Ministers dated 3 August 1973 be limted only to specifically justified cases,

--that the proper supervision of compliance according to the decisions be exercised.

Beyond this, the above circular obliges ministers (heads of central offices) to ensure the continuity of production and deliveries in the necessary amounts to serve the needs of consumers in cases of the transfer of the production of products from one enterprise to another, to guarantee the production of spare parts for operative machinery and equipment the production of which has ceased, and to overrule decisions of directors of associations for halting or limiting the production of products for which consumer demand exists.

The Chairman of the Council of Ministers, in order No 45 dated 3 July 1978 concerning increased responsibility for procurement of raw materials and other materials, set in order the procedure to be used in cases in which decisions undertaken by directors of associations to limit or halt the production of raw materials and other materials cause an increase in the import of these articles from states belonging to the II payments area. In accordance with the regulations included in this order, the growth of import resulting from a decision to limit or halt the production of products is charged against the import limit of the minister who approved this decision.

The goal of the regulations discussed above is to guarantee the execution of planned tasks in the field of materials-technical procurement at the levels of enterprises and sectors.

In order to ensure the fulfillment of these tasks at the higher levels of planning and management, government decisions have been undertaken. These are contained in decision No 49 of the Government Presidium dated 30 March 1978 concerning increased discipline in the fulfillment of product balances.

The decisions establish that the responsibility for fulfilling product balances validated by the Council of Ministers and the Planning Commission of the Council of Ministers is borne by the appropriate ministers. The Chairman of the Planning Commission of the Council of Ministers supervises the fulfillment of these balances. Decisions in matters connected with guaranteeing the proper fulfillment of product balances are undertaken by the unit approving the balance in an understanding with the consignees of the balanced products. The Council of Ministers and the Chairman of the Planning Commission of the Council of Ministers execute a quarterly evaluation of the fulfillment of product balances validated by the Council of Ministers and the Chairman of the Planning Commission of the Council of Ministers on the basis of analyses submitted by the proper ministers. On the basis of these evaluations, the Chairman of the Planning Commission of the Council of Ministers undertakes [the execution of] the appropriate decisions or submits suggestions for consideration by the Presidium of the Government. The Minister of Materials Management has been empowered to step up inspections of the proper execution of plans of product balances by balancing units as well as to ensure that their fulfillment coincides with planned assumptions.

Other Method for Improving Planning of Material Needs

In addition to the above-mentioned directions for improving planning and the implementation of tasks in materials management which lead to ensuring the greatest objectivization possible to planned needs and to serving these needs, and [in addition] to increasing discipline in the implementation of procurement plans, a number of other endeavors have recently been undertaken to increase the efficiency of materials management.

Here we must mention above all decisions contained in decision No 125 of the Presidium of the Government dated 22 August 1978 on improving the effiency of stocks management.

A very substantial effect on the freeing of reserves in the materials economy would be felt by the implementation of the proposals and postulates contained in this decision with reference to the following:

a) the further shortening of the advance period in the placing of orders with reference to the delivery date,

b) the creation of sector systems of controlling stocks,

c) the systematic increase of the scope of centralized systems of management of spare parts for machinery, equipment and means of transportation,

d) the appointment of a special enterprise in the ministry of construction and the industry of construction materials, the task of which would be the management of construction materials left at construction sites, as well as those resulting from the liquidation (razing) of houses, buildings, and the like.

The implementation of the proposal mentioned in point a) may contribute in very great measure to efficiency in planning, especially operations planning, through its closer connection with procurement processes, and may also cause a significant reduction in materials stocks among consignees.

Putting into effect the postulates contained in points b) and c) may free very large reserves of materials and spare parts as a result of the dispersal of stocks among various users.

Recently accumulated experiences give evidence that one of the most effective organizational developments with reference to stocks management is to increase the disposability of materials stocks by means of centralized record keeping on the scale of a number of users. In this way, thanks to the collation of surpluses of stocks occurring in certain enterprises with shortages of materials in other enterprises, it becomes possible to liquidate the phenomenon of irregular stocks, and, consequently, to hasten their rotation.

The intensified freeing of reserves contained in stocks is also served by regulations ordering methods for managing irregular stocks. These issue from resolution No 170 of the Council of Ministers dated 23 November 1978, which replaces resolution No 164 of the Council of Ministers dated 6 August 1971 in this area (the entire text is included in MONITOR POLSKI, No 5, 1979, item 45), as well as from the system of financial sanctions for the uneconomical management of excess stocks, introduced in an order from the Minister of Finance dated 2 March 1979, concerning the clearing of accounts by state units of budgetary charges by virtue of the uneconomical management of excess stocks (MONITOR POLSKI No 9, item 60).

All of the endeavors discussed here leading to improved materials management through the objectivization of the volume and structure of material needs, through the strengthening of the discipline of the implementation of tasks, through the creation of systems for controlling stocks, through the creation of systems for controlling stocks, through the application of new measures, and the like take a relatively long time to be implemented and to achieve perceptible results expressed in increased efficiency of materials management.

Under circumstances of the continually mounting difficulties caused by the failure of the growth of material supplies to keep pace with the growth of the demand for them by the developing economy of the country, the application of solutions of the centralized regulation of current procurement processes has become essential.

The Chairman of the Council of Ministers has introduced a system of operative control of procurement for the economy for deficit products in particular that will go into effect on 15 August of this year.[11] To this end in the following ministries: those of the Chemical Industry, the Machine Industry, the Heavy and Agricultural Machine Industry, the Ministry of Metallurgy, the Ministry of Forestry and the Ministry of the Food Industry and Purchases special groups have been appointed whose members include, among others, representatives of ministries supervising major consignees, representatives of the Planning Commission, of the minister of foreign trade and the maritime economy and the minister of materials management. The heads of these groups have been authorized to execute changes in allocation volumes for particular consignees, taking into account the current needs of the economy and the state of stocks.

The system of control encompasses the turnover of paints and varnishes, plastics and packaging made from these, truck and bus tires, copper, tin and tin-lead binding materials, cables and wiring, plumbing-sanitary articles, batteries, wood-derivative panels, paper and cardboard as well as the packaging made from these materials, metal packing materials.

FOOTNOTES

1. Stefan Marciniak, "Ratios and Materials-Consumption," ZYCIE GOSPODARCZE, No 35, 1979.

2. Jozef Zajchowski, "What To Change First," ZYCIE GOSPODARCZE No 16, 1979.

3. Janusz Quant, "Selected Problems in Construction," BANK I KREDYT No 5, 1979.

4. Henryk Chadyzynski, "It Is Not Enough To Know," ZYCIE WARSZAWY No 221, 1979.

5. According to Tadeusz Podwysocki, "Factories Love Chips," ZYCIE WARSZAWY No 199, 1979 and the same author's article "Steel Reserves," ZYCIE GOSPODARCZE No 3, 1977.

6. According to Aleksandr Jedrzejczak, "Where Steel Flows," ZYCIE GOSPODARCZE No 10, 1978.

7. According to Jerzy Baczynski, "Forging, Polish-Style," ZYCIE I NOWOCZESNOSC No 481, 1979.

8. This is frozen steel, and even steel that is partly wasted in plus tolerances of rolled products (according to Aleksandr Jedrzejczak, "Where Steel Flows," ZYCIE GOSPODARCZE No 10, 1978).

9. Jerzy Kwejt, "An Introductory Synthesis of Research on the System of Materials Procurement in the Socialist Economy," Part II, GOSPODARKA MATERIALOWA No 9, 1979.

10. Information from the Office of Materials Management, GOSPODARKA MATERIALOWA No 10, 1979.

11. "The Operative Control of Stocks," ZYCIE GOSPODARCZE No 35, 2 September, 1979.

8536
CSO: 2600

BRIEFS

FIRST LIGNITE HEWING COMBINE--Miners in Plostina, where experiments are being carried out with the first hewing combine produced in Romania, have extracted the first 5,000 tons of lignite with the new machine. Produced by the collective of the enterprise for mining equipment in Petrosani, the combine is operating at the parameters specified in the documentation. Its equipping with cutting devices of Romanian conception permits the achievement, with the same consumption of electric energy, of a productivity which is 50 percent higher than the productivity of imported combines. According to calculations made by specialists in the Institute of Mines in Petrosani, about 9 million tons of lignite can be extracted with the electric energy saved in 1 year by the generalization of the equipping of combines with this hewing sub-unit. [Text] [Bucharest ROMANIA LIBERA in Romanian 22 May 80 p 1]

CSO: 2700

MONETARY, CREDIT TRENDS IN FIRST QUARTER OF 1980

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 29 Apr 80 p 4

[Article by R. V.]

[Text] The placement of first-issue money for selective credits and to cover stocks and bonds grew less than expected, while bank credits were more than had been projected, by 1 percentage point. In the overall growth of credit, organizations of associated labor in economic activities accounted for about 80 percent, while noneconomic organizations of associated labor, including the general population, accounted for the remaining 20 percent.

After marked increases in the first 2 months, in March the cash supply fell by 2 billion dinars, so that the cumulative growth in the first quarter amounted to 14.9 billion dinars, or 4 percent. This does not surpass the limits established by measures of monetary and credit policy, because the resolution on economic policy for this year anticipated that the money supply and bank credits could grow at the most to the planned nominal growth of social production, which is 22 percent. For dynamic coordination of this task, the Council of Governors through its decisions anticipated that in the first quarter the money supply could grow as much as 4 percent, placement of first-issue money for covering stocks and bonds and selective credits up to 6 percent, and bank credits up to 4.5 percent.

The actual trends show that in the first quarter, placement of first-issue money for selective credits and to cover stocks and bonds grew markedly less than anticipated and the growth in the money supply was within planned limits, but the placement of bank credits increased 1 percentage point more than projected.

In the growth of total credits, organizations of associated labor in economic activities accounted for about 80 percent, while noneconomic users, including the general population, received the remaining 20 percent. In terms of purpose, the greatest credit increases were for production, reserves and exports, while short-term credits showed a much greater growth rate than long-term placements.

Regionally, total bank credits in the first quarter increased 5 percent in Bosnia and Hercegovina, 7 percent in Montenegro, 6 percent each in Croatia and Macedonia, 4 percent in Slovenia and Serbia proper, 5 percent in Kosovo and 6 percent in Vojvodina.

In contrast to bank credits, which contributed to the growth in the money supply, other categories contributed to its reduction. That applies primarily to convertible currency transactions of banks, which due to high import levels drew some 29 billion dinars out of circulation. Along with that, the reduction in the money supply was affected by the transfer of monetary deposits into nonmonetary ones; on that basis about 25 billion dinars were withdrawn from the money supply.

The structure of the money supply by users shows that in the first quarter, liquid assets of organizations of associated labor in economic activities were reduced 2 billion dinars, while in noneconomic activities, among the general population, and in payment transactions, they grew 16.9 billion. Within the limits of the economy, the assets of joint consumption funds increased, but they declined markedly in the active accounts of organizations of associated labor. Among noneconomic activities, particular increases came in the accounts of sociopolitical communities and in public funds, which resulted partly from use of funds set aside from the final accounts for 1979.

Actual cash in circulation grew more in the first quarter than is normally the case in this period of the year. Those effects were determined in the first 2 months, while in March that trend changed noticeably, as savings deposits by the citizenry again began to grow, influencing a slowing in the growth of cash in circulation.

A distinct influence on trends in the money supply came from the unusually high growth rate in funds for payment transactions (4.3 billion dinars). That was a factor with long-term character and it reflected negatively on the liquidity of organizations of associated labor and banks. Therefore it is essential for the Public Accounting Service to organize payment transactions as soon as possible so that the money of users of public funds will not be tied up in payments unnecessarily or overly long.

Table: The Money Supply By Sectors (in billion dinars)

	(1) Promene				
	31. III 1980.	III 1980.	I–III 1980.	III 1980. / XII 1979.	III 1980. / XII 1979.
(2) Privreda	157,2	– 5,5	– 2,0	99	113
(3) Organizacije udruženog rada	127,9	– 5,8	– 7,0	93	111
(4) Samostalne iteresne zajednice	29,3	0,3	5,0	135	125
(5) Neprivredne delatnosti	132,2	0,8	6,9	106	119
(6) Gotov novac	96,4	1,7	5,7	106	132
(7) Sredstva u platnom prometu	15,5	– 1,0	4,3	138	117
(8) Novčana masa	401,3	– 2,0	14,9	104	119

Key:

1. Changes
2. The Economy
3. Organizations of Associated Labor
4. Independent Interest Communities
5. Noneconomic Activities
6. Cash in Circulation
7. Funds in Payment Transactions
8. The Money Supply

12131
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FOREIGN TRADE, FOREIGN EXCHANGE BALANCE DISCUSSED

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 3 Mar 80 pp 19-21

[Text] A specific task in development of economic relations with foreign countries this year is to reduce the deficit in the balance of payments from about $3.3 billion, which is the estimate for last year, to $2 billion this year. The deficit can be reduced in two ways: by increasing foreign exchange revenues through larger exports and invisibles and by reducing foreign exchange payments for imports and invisibles. The combined effect of both these methods is being taken as the basis for performing this task. The most recent decision of the Federal Executive Council reducing the basic turnover tax on certain products purchased for dinars obtained by selling foreign exchange held in regular and passbook foreign exchange accounts has been bolstered by an increase in foreign exchange revenues and a reduction of expenditures of foreign exchange by individuals on the basis of direct imports.

This measure could help to increase foreign exchange inflow. It is normal for an augmented inflow to cause a certain relative reduction of foreign exchange savings. This is not a bad thing, however. That is, we must bear in mind the fact that foreign exchange savings (amounting to between $6 and $7 billion) is not so cheap and that foreign exchange interest payments exceed $500 million annually--approximately 50 percent of the inflow of foreign exchange from tourism. This measure could also have certain adverse consequences. In essence it is a question of introducing a dual rate of exchange of the dinar, which could tend to increase so-called private clearing. A growth of private clearing automatically signifies a direct reduction of foreign exchange remittances and a reduction of the recorded inflow of foreign exchange from foreign tourists.

Inflow of Foreign Exchange

Gradual achievement of equilibrium in the balance of payments, that is, reducing the deficit this year to $2 billion, in essence presupposes a sizable growth of the inflow of foreign exchange. This does not mean that we should underestimate the possible economic benefits coming from economy in the spending of foreign exchange. The economizing should nevertheless be exclusively economic in nature; it should not be so profitable to import goods and services indiscriminately as is the case in the present price relations.

Difficulties in the balance of payment are almost exclusively the consequence of the adverse trade balance. Over the last 10 years (from 1970 to 1979) there has always been a deficit in the trade balance. Three years ended with a surplus in the balance of payments (1972, 1973 and 1976). We should bear in mind the fact that in precisely those years what is referred to as imports not covered by exports were greatest (higher than 63 percent).

Table 1. Trade Balance, in millions of dollars

Year	Exports	Imports	Deficit
1970	1,678	2,874	1,195
1971	1,817	3,252	1,435
1972	2,241	3,233	992
1973	2,853	4,511	1,658
1974	3,805	7,520	3,715
1975	4,072	7,697	3,525
1976	4,878	7,367	2,489
1977	5,254	9,636	4,380
1978	5,671	9,988	4,317
1979*	6,794	14,019	7,225

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* Computation done on the basis of the Order of the Federal Executive Council Setting the Rates of Exchange of Foreign Currencies (SLUZBENI LIST SFRJ, No 38, 1979).

The total volume of foreign trade increased 4.5-fold between 1970 and 1979 (from $4.6 to $20.8 billion). Imports over that same period increased considerably faster (from $2.9 to $14 billion in 1979). Exports were largest in relative terms in 1972, when exports amounted to 69.3 percent of imports. In 1977 exports amounted to 66.2 percent of imports, and in 1973 the proportion was 63.2 percent. These were years when a surplus was achieved in the balance of current international transactions. The coverage of imports by exports was lowest last year (48.5 percent), and then in 1974 (50.6 percent) and 1975 (52.9 percent). In years when exports have fallen furthest behind the largest deficits were recorded in the balance of payments in relative terms. This encourages the conclusion that any sizable improvement of the balance of current international transactions depends on increasing exports. It cannot be concluded from this that invisibles do not have a significant impact on the balance of payments. These consist primarily of revenues from foreign exchange remittances of workers employed abroad temporarily, receipts from foreign tourists and transportation revenues.

The Impact of Invisibles

The importance of invisibles to the balance of payments and to the country's external liquidity is not to be underestimated. The net inflow on the basis of services and transfers has ranged from 18.6 percent of total foreign trade (exports plus imports) in 1970 to 29.1 percent in 1973. Though net earnings on the basis of invisibles are growing steadily, in relative terms their proportion has been declining since 1974. The reason is the dynamic growth of foreign trade and also the lack of a sufficiently effective mechanism to encourage the growth of foreign exchange inflow primarily on the basis of remittances and receipts from foreign tourists.

Table 2. Inflow From Invisibles and the Deficit in the Balance of Payments, in millions of dollars

Year	Net Earnings From Services and Transfers	Balance of Current Transactions	Share of Services and Transfers in Foreign Trade, %
1970	847	- 348	18.6
1971	1,079	- 357	21.3
1972	1,412	419	25.8
1973	2,144	485	29.1
1974	2,532	-1,183	22.4
1975	2,622	-1,003	22.3
1976	2,654	165	21.7
1977	2,798	-1,582	18.8
1978	3,061	-1,256	19.5

The largest deficit in the balance of current transactions occurred in years when the so-called coverage of imports by exports was lowest and when the share of net earnings on the basis of services and transfers in foreign trade was smallest. This statement also applies to last year, though we still do not have final figures on invisibles and the net result in current transactions. The trade deficit last year was $7.2 billion, and the deficit in the balance of current transactions (estimated) was $3.3 billion. In that year the coverage of imports by exports was the lowest in the last 10 years (only 48.5 percent).

The question arises why a definite pattern occurs whereby in years when relatively more favorable results are achieved in foreign trade, better results are at the same time achieved on the basis of the inflow of foreign exchange from invisibles. Although this phenomenon probably cannot be related exclusively to the rate of exchange, which is one of the elements of the competitiveness of our products on the foreign market, the significance of this element should neither be denied nor underestimated. This is in fact indicated by the results achieved in 1972, 1973 and 1976. Two corrections (devaluations) of the rate of exchange in 1971 helped to improve the competitiveness of our products on the foreign market, especially in 1972, just as the intensive price rises in other countries in 1975 and 1976 also contributed to improved competitiveness of our manufacturers on foreign markets.

Policy Governing the Rate of Exchange

The policy of a realistic rate of exchange is a commitment that is always present. What is meant by the term "realistic rate of exchange" and the kind of impact on the overall results of economic relations with foreign countries attributed to this factor is another question. One can hardly suppose that the rate of exchange is realistic when the deficit in the balance of payments is growing. A realistic rate of exchange, supported by appropriate tariff and nontariff protection of domestic production and export incentives is close to the price of foreign exchange at which supply balances demand. In our context demand exceeds the supply on a lasting basis, even in spite of the effect of a number of import restrictions.

Maintaining a realistic rate of exchange certainly cannot help to increase the stability of the domestic economy unless the internal difficulties constantly causing inflation are resolved at the same time. This applies primarily to appropriate control of production costs, control of general and community expenditure, the linking of personal incomes to the results achieved by organizations of associated labor and the dependence of capital investments on the funds available. Under present conditions a large portion of income is siphoned off by the instruments of tariff and nontariff protection, through export incentives and other forms of foreign exchange inflow, including benefits granted when certain products are purchased for dinars obtained from selling foreign exchange. The question arises why we commit ourselves to such a high level of siphoning off of the national income if it could be essentially diminished by appropriate adjustment of the rate of exchange (we are referring to linear burdens on imports and linear incentives for exports). Three arguments are usually made: the high degree of the Yugoslav economy's dependence on imported processing materials, dependence with respect to imports of equipment (this has to do with paying off outstanding credit) and unrealistic improvement of the purchasing power of that portion of the population holding foreign exchange. However, we should bear in mind that the high level of siphoning of income also signifies that multiple rates of exchange are in effect. Moreover, the exchange is lowest on actual currency (efektiva). This has adverse consequences both for the level of inward foreign exchange remittances and the competitiveness of our tourism. At the same time it increases private clearing, which in part goes into foreign exchange savings deposits. However, these deposits are not so cheap, and they are spent in part both directly to augment imports and to pay for services abroad.

Increasing the rate of exchange of foreign currencies would undoubtedly tend to raise production costs, and would also have an effect on inflation. Yet the impact would not be so great as is usually thought. According to the analyses of Mato Babic on the distribution of material costs, a rise of

30 percent in the rate of exchange on foreign currencies, for example, would increase material costs in the economy as a whole only 4.4 percent.

Table 3. Impact of a Change in the Rate of Exchange on Material Costs, in percentages

Activity	Share of Imported Components in Material Costs	Growth of Material Costs Resulting From a 30-Percent Rise in Rate of Exchange
Economy as a whole	14.5	4.4
Coal processing	69.7	20.9
Production of petroleum derivatives	63.8	19.1
Production of transportation equipment	24.2	7.3
Shipbuilding	28.9	8.7
Production of machines and appliances	21.3	6.4
Production of chemical products	35.2	10.6
Paper production and processing	16.8	5.0
Production of yarns and fabrics	31.9	9.6
Production of leather and fur	31.5	9.5
Rubber processing	34.5	10.4
Production of livestock feed	17.4	5.2

The influence of external inflation is also causing (in these relations) a rise in the material costs of production. The influence is greatest in industries most dependent on imports. We are referring primarily to coal processing, the production of petroleum derivatives, the production of chemical products, rubber processing, production of yarns and fabrics, leather and fur production and shipbuilding. A rise of the material costs of operation because of a higher rate of exchange could also have favorable consequences--greater use of domestic raw materials and supplies and a faster pace in the process of import substitution.

7045
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SMALL SCALE OF INTERREPUBLIC INVESTMENT APPRAISED

Sarajevo SVIJET in Serbo-Croatian 11 Mar 80 pp 4-5

[Article by Slavko Stanic: "Certain New Treasuries"]

[Text] Over the last two medium-term plans of Yugoslavia's economic and social development interrepublic and interprovincial pooling of labor and capital was put among the priorities and referred to as an imperative and a condition for more rapid economic growth of the Yugoslav economy. We are realizing most of these planning targets successfully, but with respect to this last one, we are marking time. We ought to be disturbed by the datum that over the last 4 years of the last medium-term plan only 0.3 percent of the value of the nearly 30,000 various capital investment projects whose foundations we laid, which we built or which we are still building was on an interrepublic or interprovincial basis. Certain sociopolitical communities have more "joint investment projects" with foreign partners than with the economy from other republics or provinces.

What Are the Causes?

There are, of course, weighty reasons for this, since capital investment cooperation with foreign countries is more attractive because of the credits obtained, technology borrowed and licenses. However, when all this is taken into account, it is still difficult to explain why the dinar destined for capital investment has moved slowly over republic and provincial boundaries.

Analyses made at the end of the previous medium-term period and also those being made for the new plan covering the 1981-1985 period are unable to figure out the causes of this situation except to make the observation that here we have been "short." Like it or not, this is becoming a serious hindrance to our more rapid economic growth. Those who feared that this pooling of labor and capital over the boundaries of sociopolitical communities would become a problem one day, since this pooling of capital and labor in the framework of individual industries could take on the character of monopolies which society should defend itself against, have turned out to be wrong. Just as those others were wrong who in various discussions about changing the mechanism of the Fund for Development of the Economically Underdeveloped Republics and the Province of Kosovo expected a great deal from the circulation of investment capital over the borders of republics and provinces as an additional stimulus to development of the economically underdeveloped regions.

Much was expected, and some of our planners and businessmen could already see cycles of reproduction representing entire chains of production from raw materials to the finished product being created. We have already seen, for example, the coordinated investment policy of the country's entire ferrous metallurgy, which means that the concern about the supply of raw materials is to be integrated. Research and development and the modernization of production in mining are to be financed by the entire manufacturing industry. There have been quite a few talks about this and agreements at the level of the republics and provinces, and if everything resolved over the past 4 years is carried out, it is likely they would end this plan with considerably better balance sheets as to the volume of exchange of labor and capital within the unified Yugoslav market. However, with the exception of a few joint capital investment projects in the energy field, which in some cases have been initiated by foreign loans, the inventory shows that once again least has been done in this area and that there will be a large shortfall in this planning period once again.

Recently the press has attempted to record what has been built over the last 4 years by interrepublic and interprovincial dinar investments, but it has had to be satisfied with the observation that opportunities have not been taken advantage of and agreements have not been carried out. Within the framework of the upcoming discussions concerning the criteria which will be used in the next medium-term plan as the basis for determining the level of development of those republics and the Province of Kosovo which are receiving funds from the Fund for the Undeveloped this serious problem ought to be elucidated from every angle. Especially since on every occasion, in all calculations made as to how economic development of the underdeveloped regions can be speeded up and how their rate of economic growth could be higher than that in the advanced republics and the Province of Vojvodina, much reliance has been put on the "migration" of investment capital within the Yugoslav market in pursuit of optimum investment.

The Example of Kosovo

This is best confirmed by the example of Kosovo. Over the last 4 years of the plan, while investments in the advanced republics and the Province of Vojvodina exceeded the established limits, in Kosovo only half of the planned investments were made, and joint investments with the economy outside the province did not exceed the Yugoslav "average" of 0.3 percent.

If this province of ours were not offering optimum opportunities for effective investment and if there did not exist appropriate national resources, available manpower and numerous economic projects for construction of energy and certain manufacturing capacities, perhaps this feeble interest on the part of dinar investment capital from the other advanced communities might be explainable. The situation is similar in our other economically underdeveloped regions, where once again all the conditions exist for dinar investment capital obtained from outside to be invested so as to meet all the higher requirements of investors from the other republics and provinces, usually the same ones. But once again there is no joint investment.

Groundless Optimism

This situation, which is more our problem than a phenomenon, though it contains a bit of both, is explained by the shortage of investment capital, and certainly this is correct, since foundations have been laid for many economic facilities in order to take advantage of the natural resources that exist and also to increase the rate at which new jobs are provided. However, there are also other major reasons why dinar investment capital has difficulty crossing the borders of a sociopolitical community to bear fruit in another sociopolitical community to the mutual interest of the investor and the facility where the dinar is invested. And that reason is that the capital surplus of the individual industries or production operations, meager as it is, has been alienated from those who created it, and the decision about its investment is not being made by associated labor.

We have not said anything new here, since all this was recently stated in Kragujevac as part of the recent "Red Banner" gathering. But when this is translated into comprehensible language, it follows, for example, that the manufacturing industry which has aluminum as its raw material has not won itself the right to see to its own development and its own supply of processing materials. The surplus it creates is drawn off in the opstina or city or the republic or province in order, as one of the participants in the discussion in Kragujevac said, to build a hotel or a garment factory. That is also the fate of the income or surplus at facilities whose investors came from other republics and provinces. In these joint investment projects the partner from the other sociopolitical community is buying more the "right" to the supply of, say, some raw material, energy or intermediate projects than establishing a relation based on shared income. There is no basis, then, for becoming a principal in decisionmaking on the basis of dinar investment capital.

Where Is the Way Out?

So, it cannot be said that someone is standing in the way of dinar investment capital so that it cannot leave the republic or province, but simply the hunger for investments is greater than the capital available, and there is still quite a bit of administrative redistribution resembling that which dates from the extrabudgetary balance of the Federation: a large treasury is created at the level of sociopolitical communities which is built up by the entire economy and from which plans of capital investment spending are carried out. And it is difficult to expect that a manufacturer from some more advanced republic would find the strength to set aside a portion of his surplus to create some reproductive cycle with producers from other republics and provinces until that treasury is abolished and until the situation comes about where he who creates the capital decides about his own surplus labor, which means that he makes decisions on capital investments as well.

So the demands that run through our planning documents which call for the republics and provinces to examine possibilities for exempting organizations of associated labor from the payment of taxes and contributions if they pool their capital in the development programs of the economically underdeveloped republics and Kosovo sound a bit unrealistic. The proof is that no one has yet done this when it is a case of encouraging investment over republic and provincial boundaries, and indeed that there are few such incentives for investment in the underdeveloped regions within the same republic.

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ZVONE DRAGAN DISCUSSES ECONOMIC PROBLEMS

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 24 Mar 80 pp 18-20

[Interview with Zvone Dragan, vice chairman of the Federal Executive Council, by EKONOMSKA POLITIKA staff: "Dilemmas, Both Fabricated and Real"; date and place not given]

[Text] Question: Judging by the debates of the planners and economists so far, the plan's place and role in our system is still not only the most topical, but also the most important issue at this point.

Answer: The constitutional and legal principles have furnished a clear social, political and normative foundation for the gradual reaffirmation of the planning function in our system. Here the reference is not to reaffirmation of the old planning system, but to developing the planning function in the present socioeconomic system and especially to the appropriate role of planning in guiding the flows of social reproduction consistent with the new arrangements embodying the system.

In practice, however, we are only at the beginning. I am thinking here primarily of assumption of functions by the principal planning entities, of building and respecting planning motives and the instruments used, and also of the application of three basic principles of the system of social planning. The first is that all plans in society must take as their point of departure the mutually correlated plans of the basic organizations and net income as the principal motive and parameter of the plan, which requires synchronization in the mutual adjustment; the second principle is the integrated nature of planning, not in the sense of totality, but in the sense of all aspects of planning from the economic to the social aspect and the spatial component, planning development of the institutions of the system and the overall conditions for the conduct of activity and to their mutual correlation. The principle of continuous planning, which is the third, calls for our own projections to be verified, supplemented and corrected against actual developments at home and abroad.

This is a dialectical and antidogmatic approach, since plans are not omnipotent documents set down once and for all which are untouchable and whose possible amendment is a taboo topic. In analysis, of course, it is always worthwhile to assess the objective and subjective reasons for departures from the planning forecasts.

Question: How do you explain the assessment that there has been such a lag in practice when the constitution was adopted 6 years ago and the Law on Planning not much later than that?

Answer: If we actually look for some justification, then aside from the disproportion and contradictions in the structure of social production, which are impeding the functioning of the new arrangements embodying the system and thereby the system of self-management planning as well, it lies partially in the fact that the planning system is really complicated. That is, it requires a major organizational effort on the part of all the subjective forces over the entire space from politics to science--as well as professional ability and ability in the politics of self-management in order to achieve a self-managed system of social planning in accordance with this conception.

Yet there are things that might have been resolved more rapidly. I think that one of the reasons why the new planning system is slow to come to life is that the new process is viewed only through the narrow prism of the legal norms governing the planning system, while the achievement of overall new socioeconomic norms, that is, systems and subsystems is envisaged. As I said, if practice is slow to apply the new system of economic relations with foreign countries, the new banking system or whatever--that it is quite clear, since planning enters into all the pores of social production, that in its content and its method it will develop to exactly the extent that in practice there exists a totality of relations based on the foundations of shared income through self-management in social production.

This is the way out of the present vicious circle. After all, advanced and effective planning under the conditions of our system is one of the infallible instruments of the policy of economic stabilization. Insofar, of course, that we do not deceive ourselves that mere economic policy measures and certain partial stabilization programs by planning entities could in and of themselves automatically make the conduct of economic activity more stable. Conversely, self-management accords and agreements concerning the bases of plans, as the basic mechanisms of the self-management planning system, and, of course, the plans themselves deriving therefrom and their effective fulfillment do in and of themselves mean that the component of stabilization is incorporated into all the flows of reproduction. This occurs at all levels and in all fields, and it is a long-range phenomenon, one that is indispensable if the hotbeds of inflation formed over the years are to be eliminated.

Question: What is the role of objective economic laws in all this, and how large is that role?

Answer: We are building the system of a self-managed economy in which market forces and planning are combined. A system, then, in which self-management relations and mechanisms are the way of overcoming socioeconomic contradictions. A way, that is, of constantly mastering the new contradictions that are always arising in physical movements and social relations. If we take this as our point of departure, then it is quite clear that there cannot be any harmony that is set down once and for all, even though the state, policy or something stands behind it. Our model is premised upon respect for objective economic patterns, but it is also aimed at overcoming them. There should not be any dilemmas, then, either theoretical or practical, about what is more important in our model of self-management planning: the objective laws of the market or the planning component. The model will not yield optimum results unless it signifies a strengthening of both the planning and the market function. To oversimplify: planning without a market is just as negative as a market lacking an advanced self-management social planning function and planning process. This especially applies to the development of physical production.

Question: The plan for the market, then, is a fabricated and artificial dilemma.

Answer: In the context of our system that polarization should have been superseded long ago. After all, experience has confirmed this several times, that polarization is usually accompanied by government interventionism and administrative regulation, which attempts to give preference to the one and hampers or neglects the other. So, the only consistent model that is possible lies in constant respect for and development of the self-management planning and market function. The essential thing is that the self-management planning system is impossible as a rational social system at this stage of development of the productive forces if it lacks one of the principal prerequisites: efficient operation, but also the mastery of objective market laws. This is even one of the important criteria for development of what is referred to as the free exchange of labor for certain domains of social reproduction.

Not even the conclusion of self-management accords can be the fruit of subjectivistic voluntarism, which it must not be, or even the fruit of monopoly aspirations, since this would be constitute a negation of objective economic laws and indeed of socialist self-management itself. We speak of the conclusion of self-management accords as a method within associated labor and at other levels. Nor can relations based on shared income be optimal unless these laws are respected. It may seem that this can be achieved in certain phases of production within work organizations, but this is an apparent and at best a partial solution, which becomes untenable as soon as it is tested directly or indirectly on the market.

I think, then, that we always err when we do not take this into account, but rely on short-term calculations or one-sided solutions, and we lean toward one extreme or the other instead of constantly seeking the optimum ways of mastering and strengthening the planning and market functions.

On the other hand one of the generators of instability and nonoptimum solutions, broadly speaking, is certainly the disruption of the unified Yugoslav market. The causes are numerous: they lie in the slow and erroneous implementation of the arrangements embodying the system, in administrative regulation, in the noneconomic influence of the bodies and agencies of sociopolitical communities at all levels, and also in many autarkic tendencies within segments of associated labor, which are intersected at many points by flows of goods and still more flows of social capital (dinar and foreign exchange), within production, between production and distribution, the banks, and so on. But all of this is beginning to cause breaks in the flows of reproduction, which makes room for the strengthened presence of administrative measures in the functioning of the system. The situation is most dangerous in the movement of social capital. Money flows are becoming enclosed within narrow regional boundaries and within the republics and autonomous provinces. This is certainly one of the most serious factors making it more difficult to prepare and conclude joint development plans, since many autarkic and suboptimal suppositions of development and development ambitions are encountered.

Another of the expressions of autarkism is that every substitution of domestic production for an import is declared effective at all costs. At the same time we dare not lose sight of the criteria of economic selection of imports, failing to take into account which domestic production operations are efficient. We dare not act outside the context of the market and its criteria, especially the world market. This is causing serious lags in the development of domestic technology, in the rise of labor productivity, and so on.

Even today all this is one of the very serious factors restricting the optimality of the development of Yugoslavia as a whole and of its every part. When narrow positions are taken as the point of departure--and people are not mindful of the unified Yugoslav market, rational division of labor and the necessary concentration of labor and capital through self-management for joint programs, and second, the international market and the criteria of the world economy--then suboptimal decisions are automatically made in current policy and, which is still worse, in development policy. The way out certainly lies in a more consistent development of the socioeconomic relations of self-management on the basis of a pooling of labor and capital, but governed by economic motives and economic logic. We are not talking, then, about relations based on shared income in narrow, enclosed and suboptimal circles, but income-oriented relations based on and presupposing broader parameters and criteria for investment, planning, and so on. And it also lies in a more optimum division of labor and concentration of capital in the future and development of the category of joint planning and earning of income.

Question: How much of this is there in preparation of our coming medium-term plan?

Answer: It is a very mixed situation. Quite a bit of the work done so far has been isolated both within self-management organizations and communities and also in sociopolitical communities. We are now on the threshold of the decisive phase of the very complicated process of mutual reconciliation in the horizontal and vertical directions. The self-management accords and agreements on the bases of plans need to be adopted. These acts must be the resultant of the reconciliation of different interests and the exploration for joint interests, and it is on that basis that altogether specific commitments are to be assumed.

The essential thing in this phase, then, is to clarify and decide--qualitatively, as well as quantitatively wherever this is necessary because of the specific nature of certain sectors--what the joint goal and interest is and then plan individual obligations on that foundation. This needs to be done at all levels, including the federal level, where it is particularly complicated because this is a multinational community and the partners, aside from associated labor, also include the republics, the autonomous provinces and the bodies and agencies of the Federation. Second, we should even now clear up the question of whether certain self-managed organizations and communities should also be included among the signatories of certain agreements on the bases of the social plan of Yugoslavia. For example, if we have a specific agreement for the fuel and power industry, then in addition to the republics and provinces, the signatories ought to include at the very least the relevant self-managed special-interest communities unless they have assumed the same obligations in agreements on the bases of the plans of the republics and autonomous provinces. They can and must assume certain direct obligations which they will fulfill as a common interest in conforming to Yugoslavia's energy budget and implementing its energy policy.

Agreements like this must contain two basic things: joint interests and goals and the appropriate joint economic policy for the particular sector, and second, specific obligations concerning capacities, the channeling or pooling of capital to carry out joint projects, and so on. Without that we will not get a great deal of help, say, from the agreement on the joint interest in building the Yugoslav "Brotherhood-Unity" or "North-South" highways. It is a question of how specific the partners are going to be in issuing guarantees that they will do what they have agreed to and at the same time we will know precisely who is responsible for what. In addition, elements of these agreements must have their place in the planning documents of the economy and the banks. Only in that encounter can we check everyone's ambition, establish what really has priority, where the common interest lies, and so on. I have already said that we are rather late in all of this. Both in preparation of the self-management accords of self-managed organizations and communities and also in preparation of the agreements within the republics and provinces concerning the bases of their development plans.

Question: What and how should the work organization plan if the joint goals and appropriate economic policy have not been established at the level of Yugoslavia?

Answer: This approach departs from cross-planning, simultaneous planning. Just as organizations of associated labor cannot wait just to see what will be prepared at the federal level as the framework of economic policy for the coming 5 years, so it is impossible to wait forever for self-management accords concerning the bases of plans of the basic planning entities. Everyone must start out on his own terms, on the basis of his own partners in sharing income, from the possibilities for achievement of development goals as assessed at that level. The analysis of development potential in the coming planning period, which is produced at the federal level on the basis of cooperation with the planning agencies of the republics and provinces, economic chambers and extensive work done by scientific institutes, provides important information for planning entities in the self-management system. A similar function is performed by the drafts of agreements on the bases of the social plan of Yugoslavia, as I have already said.

Question: What should specifically be done so that all entities would behave in comformity with the adopted development policy? It is a natural assumption that everyone is behaving according to the given circumstances.

Answer: The truth is that it is a normal thing for all self-managed entities to behave in accordance with the given circumstances. However, this is frequently used as an excuse for the pursuit of certain partial interests, even at the expense of others. Under the cloak of acting exclusively according to the situation of the moment it is possible to conceal nonperformance of contractual obligations and obligations in self-management agreements which have been assumed, lack of respect or even violation of legal and constitutional norms and arbitrary interpretation of the social standards of behavior in the conduct of economic activity, as well as exaggerated reliance on short-term day-to-day interests.

The blame for such patterns of behavior lies not only with the self-managed entities, but also with certain economic policy measures, when they are unrealistic or late, or with incomplete solutions embodying the system, or, not uncommonly with economic policy, which does not sufficiently respect the system that is in effect.

However, even when we complete the system and develop a more appropriate economic policy, we can hardly expect that we will thereby have automatically guaranteed that all entities will behave in accordance with the social norms. There is a need for ongoing action and struggle for maximum commitment of the subjective forces in implementing the basic norms and relations in practice, for strengthening collective and individual responsibility on the part of all self-managed and professional management entities for all contractual obligations and obligations assumed in self-management agreements, as well as for clear emphasis on the responsibility of government bodies and agencies and all others which have an impact on the conditions for the conduct of economic activity and the conditions for development.

Only in this manner can we guarantee more effective realization of the agreed policy of gradual stabilization and the behavior of all, or at least a majority, of entities in accordance with that policy. If we really have seriously grasped the problematical nature of the economic situation, then we need comprehensive and multiphase stabilization of the economy, other activities and society as a whole.

First, the platform for the new plans as to content ought to be a more radical and realistic orientation in that direction, but a radicalism which is based on a real foundation of the objective material and other relations and subjective willingness to gradually achieve stabilization. This is dictated by domestic and foreign considerations, which are not only economic, but political as well.

We need, then, a more decisive orientation toward more consistent application of the system, without which there is no source from which to achieve the policy of economic stabilization. This year the system will be rounded out, and the incompleteness will no longer be able to stand as an excuse. Of course, legal norms solve nothing in and of themselves unless they are applied in practice.

Finally, we need a maximum orientation toward greater optimality in all phases of reproduction. We accordingly need the maximum possible invigoration of the qualitative factors in the conduct of economic activity. Here again gradualness is necessary, and this incidentally must be a general characteristic of all plans, since there are many restrictive objective factors, as well as--for that very reason, since these changes are not taking place overnight and solely on the basis of good intentions--government regulations or political directives. This is not defeatism. As things stand now, it will be a great achievement if we show a 5-percent real average annual growth rate of the social product.

Question: How is this to be achieved if more inflation is planned in the agreements rather than an economic policy and mechanism which guarantee normal movement of prices?

Answer: In my opinion it is unacceptable to plan the rate of inflation. It is clear that we need to plan development, and then income as the basic motivation of planning and the goals and instruments for overcoming inflation in the most specific terms possible, we need to plan commodity-money flows more effectively both in their aggregate and also their internal composition--and on that basis we need to conduct a more realistic price policy based on objective market laws and those criteria referred to by the Law on the Price System. If we continue to plan the rate of inflation, we will not get away from the constant pressure of anticipated consumption and the debate about who has more or less acquired the right to a certain level of consumption relative to the planned level of inflation. We must first of all have planning mechanisms for overcoming the generators of inflation more effectively. These, then, are the priority goals and tasks of the future plan.

On this occasion, and indeed speaking in general about planning, I would to emphasize the following. After adoption of the new legislation concerning the social planning system, there has been activity in this area, and we have done a good part of the job, which we will make use of in preparing these plans at all levels. But we still must go further in working out a planning methodology on Marxist foundations in accordance with the specific features of our socioeconomic system. Without stopping merely at input-output tables, social accounts and balances, but using them, we need to build in export-import flows, and then technology and a number of other factors which the classical methods do not deal with. In that way we would create the basis for gaining mastery of the flows of reproduction in a planned way, especially commodity-money flows, including economic relations with foreign countries. Even in our economic analyses we must penetrate more deeply into the overall structure of the gross social product (and not only the social product as we usually do now) so that we can then be able to examine more clearly the conditions for the creation of income representing newly created value.

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DISCUSSION OF SOCIAL, ETHNIC QUESTIONS IN KOSOVO

Belgrade BORBA in Serbo-Croatian 26 Feb 80 p 5

[Article by Vasa Rokic: "Constantly In Pursuit of Equality"]

[Text] This article deals in the development, maintenance, and strengthening of relations among the nationalities, but also in the fact that sometimes social problems are reflected in those relations. However, equality and unity is in the common interest of all.

The examination of Kosovo in this moment of its development would be incomplete if it did not include one of the most important characteristics of this multinational province: How are the relations among the nationalities in Kosovo developing, how are they being nursed and strengthened; what conditions are favorable and what conditions make those relations more difficult, and steer them away from the path that this society, with all its might, is trying to have them follow.

An Unavoidable Theme

This theme is unavoidable, if for no other reason but for the fact that it is the center of attention of all the responsible public workers in the province. That is understandable, because the stable relations among nationalities in any multinational society are the base for stability in all other functions of that society. In our environment the stability of these relations is the condition for our common existence and individual progress.

For equal, and ever-improving living conditions in Kosovo, much has been done, and continues to be done. Of course, much and too little are indeed relative terms, depending upon what they are being compared to. Comparing, for example, the present state of relations among nationalities in Kosovo to that of the prewar times would be pointless, because there is nothing to compare it to. However if we compare what has at the same time been accomplished in Kosovo with the conditions in any other multinationality society, within Yugoslavia or abroad, all impartial observers would admit that the progress achieved deserves the highest marks.

The relations among nationalities, their common understandings, free expression of their positive national feelings, and nurturing of positive national traditions, that is, everything that we define as brotherhood and unity among nationalities, cannot be expressed through numbers and graphs. However, much can be learned through the statistical data, especially since we know that without economic equality there is no real equality possible.

There are 410,000 students in Kosovo today: 300,000 in primary schools, about 70,000 in secondary and vocational schools, and about 43,000 in schools and faculties of Pristina University. Three-quarters of the students are Albanians. The classes are taught in languages of all nationalities: Albanian, Serbo-Croatian, and Turkish. Two dailies are being published, in Albanian and Serbo-Croatian languages, and several weeklies in all three languages. Along with that, the publishing industry is well developed, publishing works in all three languages. The nourishment of linguistic equality is one of the basic characteristics of the Pristina radio and television programming policy; then there are national theaters, movies....

Equal proportional representation of nationalities in all self-management bodies and in all aspects of public life, is a principle closely followed in Kosovo. This might seem like a special kind of pettiness to some, but when observed from a wider aspect, it has an important purpose.

Merely a Renewal of a Tradition

It is true that equality among languages has always been an important characteristic of national equality. However, focusing solely on that question would be an oversimplified approach to the nourishment of relations among nationalities since language is the basic medium of communication among people, thereby also a medium which serves better understanding and brings people closer to one another. Because of that reason it is important that the citizens of the province, and especially children in school and even preschool, learn all the languages spoken in Kosovo. And of course, they are doing so.

People we talk to say that there are problems and misunderstandings concerning that here and there, but nevertheless progress is being made. The principle is being accepted, the languages are being studied.

This reminds me of an encounter that happened long ago. One of my friends, born and raised in Kosovo, but whose job took him far from his native area, was visited by his mother. The mere appearance of that woman, dressed in the folk costume typical of that area, caused curiosity. However to everyone's surprise, this, otherwise uneducated woman, spoke fluent Albanian and Turkish along with her native Serbian language. How, why so? She was surprised at the consternation she had caused; after all, those were the languages spoken by the people that surrounded her, by the people among whom she lived! That was the language of her friends, her father's and husband's customers, the people who spoke her language fluently; so how could she not have learned theirs. Such commonsense, healthy reasoning of one semiliterate woman proved to have been a good lesson to those far better educated, or at least formally so. Nobody would be surprised at such reasoning now.

The principles presently insisted upon in Kosovo are therefore nothing new. They merely continue a tradition, an old code of behavior among the people, and especially in relations among nationalities, in social and economic interactions, applied with consistency, serving the interest of all.

Learning languages spoken by other nations is never useless. On the contrary. However, why would a parent point to his preschoolage child with pride, stating how he speaks a foreign language well relative to his age, a language that the child may have a chance to use once a year or perhaps once every 3 years, when the same parent may oppose the learning of the language spoken by his child's friends with whom he would spend his whole life.

We believe that this truth is being better understood and accepted in most cases.

Social Problems and Relations Among Nationalities

However there are still problems. Most of them are the problems that have their roots in the province's inadequate economic development.

Kosovo is economically the least developed part of Yugoslavia. The per capita income in Kosovo is only 28.8 percent of that of the rest of the country. Along with that, against all wishes and efforts to the contrary, Kosovo is developing slower than the rest of the country. There are numerous causes of these conditions, but also many consequences. The most obvious consequence is the number of social problems facing the province. It is hard to find a job there. Tens of thousands of young men and women are graduating from systems of vocational, medium and higher education, and they rightly demand their place within the working process. Employment problems are connected to desires of enterprises to operate more rationally and productively. All this could have numerous other implications. If there are 10 applicants for every job opening, and one is chosen, justice among nationalities will not be satisfied.

Another consequence of Kosovo's social problems is the exodus from the province. The Serbs and Montenegrins leave the most often. Why are they able to leave their home more easily and adapt more readily than, say, the Albanians? Because a Serb or a Montenegrin feels socially equal in most of the nation, feels at home nearly everywhere, thereby his chances for success in life are better. An Albanian, at least for now, feels that way only in Kosovo.

Quicker solution of economic, and thereby of social problems, would remove the last source of sparks that generate occasional misunderstandings among nationalities. Unfortunately this problem cannot be solved overnight. Such things take time.

The basic political climate in the province, and we were able to verify that, is stable. There are various reasons for that: the people feel the advantages of such a state, and they realize that life is now better than before. The policy of national equality, concord and unity melts away prejudices and distances among the people. In all that, the policies clearly outlined by the League of Communists of Kosovo, the Socialist Alliance and the Youth League, are essential. The battle that develops a positive program in this field stands up to nationalism, regardless of whose nationalism that is. After all, experience teaches us that every kind of nationalism is dangerous.

Kosovo rightly expects the help of the whole society, but it should not at the same time forget its own duties and commitments. All that will strengthen the unity and concord of the people and nations in Kosovo.

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AGRICULTURAL ACREAGE, PRODUCTION, TRACTORS, 1980-1985

Belgrade GLASNIK POLJOPRIVREDNE PROIZVODNJE, PRERADE I PLASMANA in Serbo-Croatian No 3, Mar 80 pp 18-19

[Article on Agricultural Technology and Prospects for Its Future Development]

[Excerpt] I. The Status of Agricultural Technology

In order to evaluate the current status of agricultural technology, several of the most important parameters are shown on the basis of which proper conclusions may be drawn.

In its postwar development, Yugoslav agriculture has made the great change from an agrarian country with backward agriculture, to a moderately developed industrial country with advanced agriculture. In the past period the magnitude of agriculture and the cultivated land total in Yugoslavia has reflected a certain principle that is characterized by a mild decline or decrease in total surface, while the number of tractors increases constantly:

Table 5.

1 Godina	2 Poljoprivredno zemljište u 000 ha	3 %	4 Obradivo zemljište u 000 ha	5 %	6 Broj traktora	7 %
1957.	15.000	100,00	10.200	100,00	14.658	100
1967.	14.800	98.66	10.200	100,00	50.695	346
1977.	14.356	95.70	9.950	97,54	296.825	2025
1978.	14.384	95,78	9.934	97,44	341.825	2332

Key:

1. Year
2. Agricultural land, 000 hectares
3. Percentage
4. Cultivated land, 000 hectares
5. Percentage
6. Number of tractors
7. percentage

These data show the magnitude and degree of intensification of agricultural production, which is further confirmed by the fact that in the period 1957-1978 the value of agricultural production in Yugoslavia increased by about 160 percent. Such progress and growth in production represents a turning point which has brought Yugoslavia to the level of the countries with highly developed agricultural production.

The level of mechanization of agriculture can be assessed on the basis of the number of tractors and accessory machinery in 1978. The number of tractors in Yugoslavia at that time totaled about 350,000, of which 27,000 were in the state farms and 323,000 on private farms.

To these figures should be added about 50-60,000 tractors that have been written off by the public sector by applying the principle of functional amortization; these tractors are being used by individual producers after overhaul.

On state farms, there are about 60 hectares of cultivated land per tractor, while on individual holdings that number is markedly lower, with about 29 hectares of cultivated land. These data lead to the conclusion that, regarding mechanical pulling power, Yugoslavia is not far behind the developed Western countries. In this assessment, however, one should not lose sight of the dispersion and the number of individual farms in Yugoslavia. When that factor is considered, it turns out that only one in ten farms has a tractor, which in turn points up the possibility of the introduction of more tractors for pulling power on individual farms.

Agricultural supplies of accessory machinery in the social sector amount to 4.2 accessories per tractor on the average, while on individual farms there are only an average of 2.4 accessories.

An assessment of the intensity of growth in agricultural technology and the level of mechanization of agriculture can be seen in the parameters for annual sales of tractors, given in table 6.

Table 6.

1 Godina	2 Broj traktora	3 %	4 Godina	5 Broj traktora	6 %
1969.	12.708	100	1974.	44.583	350
1970.	15.810	124	1975.	45.944	361
1971.	22.708	178	1976.	45.830	360
1972.	29.803	234	1977.	54.113	425
1973.	36.150	284	1978.	55.235	434

Key:

1. Year
2. Number of tractors
3. Percentage
4. Year
5. Number of tractors
6. Percentage

It is anticipated that in the coming period, approximately the same market situation for tractors will exist, as shown in Table 7.

Table 7.

(u 000 kom.)

1 Godina	2 Brojno stanje 1. I	3 Godišnja prodaja kom.	4 Amortizacija kom.	5 Stanje na kraju godine
1979.	340	55	7	388
1980.	388	55	8	435
1981.	435	52	9	478
1982.	478	52	10	520
1983.	520	50	10	560
1984.	560	50	11	599
1985.	599	48	12	635

Key:

1. Year
2. Numerical status on 1 Jan*
3. Annual tractor sales
4. Amortized units
5. Status at year's end

*Numbers are in thousands of units

On the above basis, an estimate of the load per tractor in terms of cultivated land and the horsepower per hectare at the end of 1985 are given in Table 8.

Table 8.

1 Pokazatelji	2 Obradiva površina u 000 ha	3 Broj traktora u 000 kom.	4 Po 1 traktoru obradive površina u ha	5 KS na 100 ha
6 SFRJ — ukupno	9.900	635	15,6	—
7 Od toga: — društvena gazdinstva	1.750	25	70	114
8 — individualna gazdinstva	7.850	610	12,9	382

Key:

1. Indices
2. Cultivated land- 000 hectares
3. Number of tractors- 000s
4. Cultivated land per tractor in hectares
5. Horsepower/hectare
6. Total for Yugoslavia
7. Of the total, in state farms
8. In individual farms

A similar situation applies to the supply of grain combines for agricultural producers. In the social sector, there is an average of about one combine for 52 hectares of grain. Among individual producers, there is one combine per 124 hectares of grain, which certainly is not satisfactory. It can also be said that there is a need for combine models that suit the demands of the market, both for the social sector of agriculture, i.e., combines with large capacities, and for the individual sector, as well as a need for combines designed for working on sloping terrain.

II A Projection of Agricultural Technology for the Period 1981-1985

Agricultural technology must keep pace with the development of agricultural production in order to accomplish the overall policy for food production.

The intensification of agricultural production must be accomplished in order to bring the income earned by individual agricultural producers closer to that received by those who work on state farms, since the individual sector has about 85 percent of the cultivated land at its disposal, while yields of some crops on individual farms are as much as 50 percent below yields on farms in the social sector.

This task cannot be accomplished on the basis of the positive results achieved by certain individual producers, but must be done by broader organization of agricultural producers through various forms of association.

In order to penetrate to the essence of resolving the problems of mechanization and projections of these results in the coming period, we shall consider directions for the development of agricultural technology that should be expected, separately for the social and the individual sector.

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